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Current Notes

Vol. 9 No. 8

October 1989

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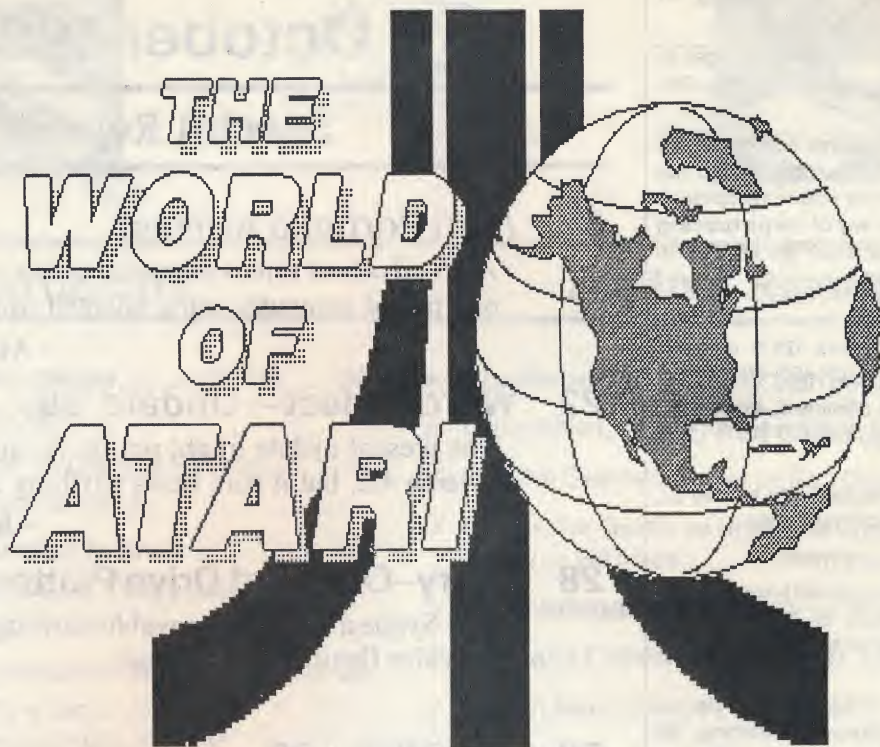
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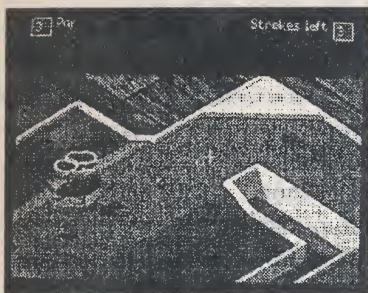
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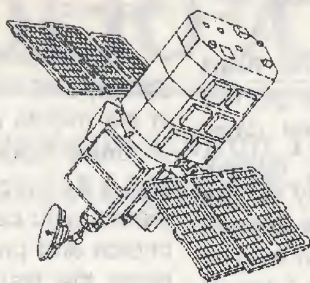
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- ST-related review or article.
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ATARI DESKTOP PUBLISHING

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TIME TO RENEW?

Check your mailing label. If you see an **8910** (10th month of 1989, i.e. October!) on the first line, then this is your **last issue** of CN. Get your renewal in right away to be sure you do not miss any issues. (If you see an **8911**, or **8912**, your subscription will soon be ending. Please try and renew early—it is a big help to us. If you belong to a WAACE club, renew via your club.



At last! Something NEW from Atari. The **Atari Portfolio** should be available by the time you get this issue. I have had one for the past several days, courtesy of Marken Communications, the agency responsible for Atari's press releases. The story at right is the "official" word on the Portfolio. It gives enough detail, and pictures, to give you a pretty good idea of just what the Portfolio is. I thought I'd use my Editorial this month to give you my own, first hand, personal impressions.

Quality. The first impression one gets of this sleek, dark gray, metal case is quality. No shoddy construction here. No cheap plastic to break off. Even the tiny keys are set solidly in their places, with a pleasing angle and firm, solid key-click. You move the front latch slightly to the right and the case unlocks. The top half lifts up, hinged at the back. These are tight hinges—whatever angle you move the top to, it stays there. Housed in the top half is the display screen and the speaker. The LCD display can thus be tilted for best viewing angle and the image is as good or better than any I have seen on any LCD screens.

Portability. The Portfolio is small. If you were to place it on your ST or Mega keyboard, it would be a little bit deeper than the distance from the top row of number keys down to the space bar. From left to right it would cover the number keys from 1 to 0 and about half of the next key. It literally does fit in your pocket. In fact, I found it quite a delight to walk into a room and announce that the Atari "portable" had finally arrived. When the inevitable question arose, "Oh, where is it?" I would simply reach into my pants pocket and pull out this MS-DOS compatible computer. The impact was quite impressive.

Hunt and Peck. There are those who think that just because the keyboard is tiny, it would be difficult to type on the Portfolio. They are right. On a standard keyboard, I have gone as fast as 80 words a minute—I use all my fingers. There's no way, however, that a touch typist could generate much speed on the Portfolio. But, if you normally use only two or four fingers, you might not notice any difficulty at all. Note also that for many of the Portfolio built-in applications, very little typing is required.

Interface. This is not GEM. If you know DOS, you can certainly navigate through the operating system. But DOS doesn't help you run any of the applications. You can learn to run the main menu and start any application, but to make effective use of it, you will have to read the manual (which, by the way, is 250 pages and very well done). However, given that you don't have a mouse-driven graphical interface, I think

the Portfolio designers have done an excellent job in making a usable menu-driven interface for the built-in programs.

By pressing the Atari Logo key (lower left hand corner) and the 'z' key, a menu immediately pops up in the middle of the screen. It shows five applications (Address Book, Calculator, Diary, Editor, Worksheet) and a Setup option. In this menu, as in all the other menus, you can move the cursor down to the item of choice and press the Return key or, alternatively, just press the first letter of the item you want to select. Within each application, the Atari Logo key can be used again to bring up an application-specific menu. Items in the menu with a trailing ellipsis (such as "Files...") indicate that selecting this option will generate yet another menu of choices. Pressing "Esc" moves you back to the prior menu. With just a little practice, it is easy to understand and use the Portfolio menu system and it works the same in each program. Hats off to the designers.

Pocket Day-Timer. Many of you may be familiar with the pocket "Day-Timers." These are little notebooks that you often see executives carrying around in their pockets. In their notebooks they keep all kinds of important information—phone numbers (clients, colleagues, family), credit card numbers, insurance policy numbers, birthdays, things-to-do lists, weekly or even annual goals, appointments, important dates, a whole variety of information that they want to have available with them wherever they are. Portfolio does all that and does it better. Indeed, I placed one of the small "Day-Timers" on the Portfolio and they were the same size! With the applications built into the Portfolio, you can carry an enormous amount of information with you and have it available whenever you want it and, unlike the paper counterparts, you can easily update your data, search it electronically, and move it from file to file in the Portfolio as well as to files in your main PC.

Applications. You will read about the various programs provided with the Portfolio. Even though this is an MS-DOS compatible computer, I won't have much need to add any more programs to those already supplied. The programs built into the Portfolio are really quite sophisticated. The spreadsheet is a *Lotus 1-2-3* clone. Although it doesn't do everything Lotus does, nonetheless, it does do a lot and provides you with impressive power in your coat or briefcase. Similarly, the *Address Book* and the *Diary* both provide some neat options I wish I had in my big PC programs!

Bottom Line. I have to send my demo unit back, but I have already purchased my own (it should arrive next week.) This is one of the neatest "toys" Atari has. I don't want to go anywhere without it.

PORTFOLIO ARRIVES!

Atari Advances Micro-miniaturization Technology with 1-Pound Computer using Adapted MS-DOS Software.

Sunnyvale, CA (September, 1989)--Atari has created a new category of personal computers with the introduction of the Portfolio™, the world's first "palmtop" personal computer. This compact system establishes new standards for the size, weight, power consumption and price of all portable computers.

A great deal of sophisticated micro-miniaturization technology was integrated into the one-pound unit, which is slightly smaller than a video cassette tape. Priced at \$399.95, the Portfolio requires only three standard "AA" alkaline batteries, yet it has the power to complete the spreadsheet, word processing and other computational tasks required by today's sophisticated and mobile users.

The Portfolio breaks new ground in terms of the amount of power, capability and versatility that is available in such a compact, economical personal computer. In fact, the 4.92-MHz system, which includes a built-in Lotus 1-2-3® file-compatible spreadsheet program, word processing software, a calculator, appointment book and phone/address directory as well as an operating system using MS-DOS 2.11-compatible commands, is comparable to having the power of an IBM PC® in the palm of your hand.

Saving Power, Space

Atari Computer's engineers and designers had one goal in mind when they began to conceptualize the Portfolio--to create the smallest, full-featured personal computer ever designed.

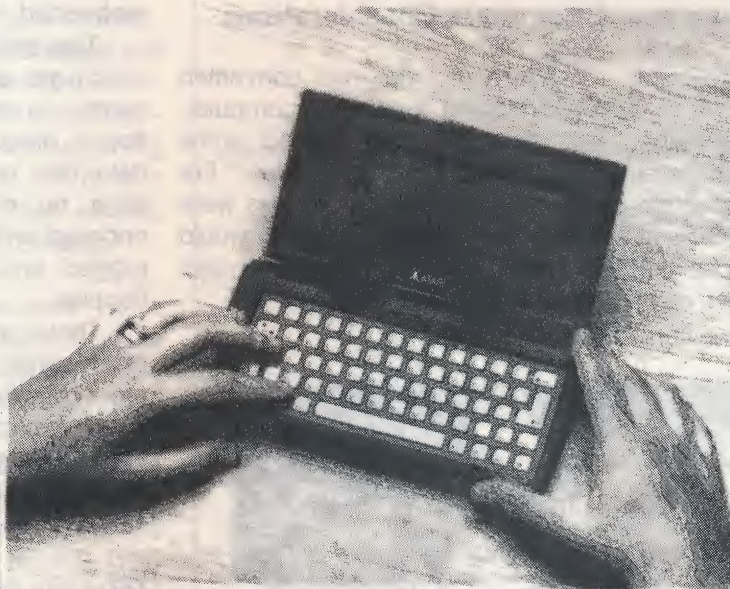
The design team had to find a lightweight, low power consumption CPU, display and other components. The Intel 80C88 static

The system software itself provides several power-conserving features. For example, while a program is waiting for the user to type, the Portfolio automatically switches into a stand-by mode. The stand-by mode is transparent to the user, because the screen does not go blank and there is no delay when the user resumes work. The stand-by mode actually stops the micro-processor clock while software is waiting for user input.

The energy-saving system also conserves its battery life by turning off automatically if no entry has been made for two to four minutes. However, data are not lost and the user simply presses any key to continue the work in progress.

Users are also warned if their batteries are running low. A built-in circuit senses when battery voltage is low and

indicates the status by putting a message on the screen before it automatically shuts the system off. Users who turn on the machine will get a "low batteries" message and the machine will again turn itself off. If the user changes the batteries within a few weeks, the data in the internal memory and file storage will not be lost.



Atari Computer's Portfolio is the world's first palmtop personal computer. The one-pound system, which uses MS-DOS-compatible commands and can run adapted MS-DOS software, has a suggested retail price of under \$400.

CMOS microprocessor, CMOS RAM and other CMOS components, as well as the LCD display were chosen for the Portfolio. The low power consumption of these components, combined with special system software, enables users to run the system for six to eight weeks under normal usage, using three standard "AA" alkaline batteries.

A True Palmtop System

Special component packaging and fabrication technology was a major factor in determining the compact size of the Portfolio. Atari Computer took advantage of the worldwide effort to miniaturize components and drew from the very latest in integrated circuit technology for their palmtop system.

For example, rather than using the standard integrated circuits that are used in full-size, dual in-line packages; the Portfolio uses miniature, surface-mount components, which are mounted on both sides of the circuit board.

Until now, it would have been virtually impossible to create such a small system with full computing power because the technology just wasn't available. For example, the Portfolio has a powerful ASIC chip which combines most of the system integration features that, as recently as two years ago, would have used multiple chips.

Another design factor that helped reduce system size was substituting a card drive and solid-state memory cards for a floppy drive and disks. This significantly reduced the system's size, weight, cost and power consumption.

Choosing a 40-column by 8-line display was the final design decision that enabled Atari Computer's engineering team to minimize the size and power consumption of the Portfolio. Rather than doubling the size of the system with a full screen display, they included a window function that allows users to travel throughout a virtual 80-column x 25-line display. This virtual screen is used when running certain Portfolio-compatible MS-DOS programs that have been downloaded onto the system.

Atari Computer's engineers designed the Portfolio similar to a clam shell. The keyboard is on the bottom half of the system and the display is on the top half. They are joined by a hinge, which enables users to adjust the angle of the screen for optimal viewing.

Ergonomic Considerations

Atari Computer was committed to developing a palmtop computer, but the small size created some definite ergonomic "obstacles." For instance, many potential users were concerned that the keyboard would not "feel" like a computer keyboard because of its small size.

Every effort was made to provide Portfolio users with the look and feel that they are accustomed to with their IBM-compatible systems. The keyboard has a 63-key IBM PC-software-compatible configuration with positive-action keys. This means that when users strike a character, they can easily feel when the keystroke is complete. There is also an audible key click (which can be disabled)—a second reassurance to users that they have entered data.

Rather than add "feet" to the system to tilt the keyboard upward from front to back, which can be clumsy, the Portfolio designers chose to tilt each keytop upward, from front to back, to optimize the viewing and typing angle. The keyboard fills the entire lower surface (7.8-inch by 4.1-inch) and a special key combination activates an embedded numeric keypad.

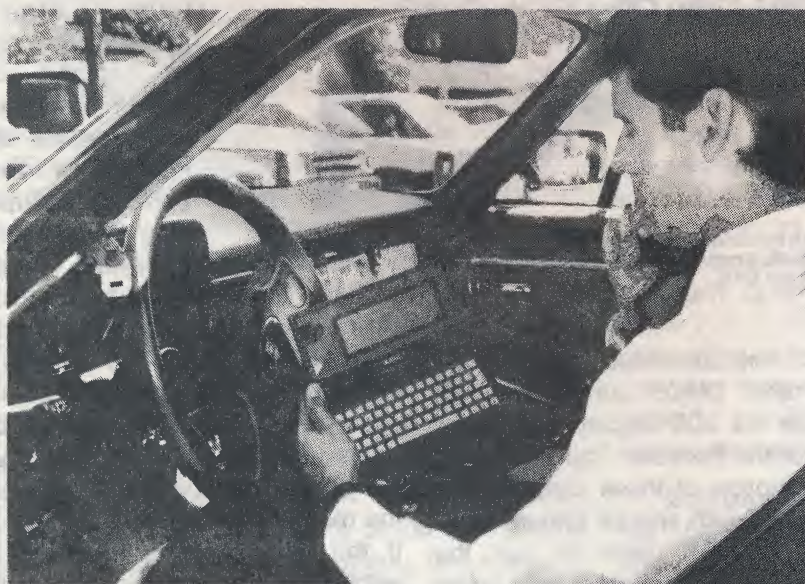
The solid-state memory cards, which are about the size of credit cards, are used in the same way as floppy disks. The cards can store data files or application programs, have no moving parts, are fully encased with plastic and are more rugged and easier to store than floppies.

There are three types of solid-state cards: memory cards, which are available in 32K, 64K and 128K; programmable (PROM) cards, which are available in 64K and 128K; and masked ROM cards, which store 128K.

Internal Software

To meet the needs of today's consumers and business users, the Portfolio is bundled with five internal software packages, including:

Spreadsheet--The Lotus 1-2-3 file-compatible spreadsheet offers users 127 columns by 255 lines. The Portfolio spreadsheet permits most Lotus 2.X commands and functions except database management and graphics.



Salespeople will find the Portfolio palmtop computer an invaluable tool while on the road. The system includes a built-in spreadsheet, text editor, calculator, appointment book program, address/phone directory and an operating system similar to MS-DOS 2.11.

Text Editor--This basic word processor includes automatic carriage return and word wrap, as well as search and replace and cut and paste functions.

Calculator--The calculator has five memories, percentage calculations and four number formats: general, fixed, scientific and engineering. In addition, there are three functions: factorial, power and root. The calculator also includes an editable "tape" of previous calculations with spreadsheet-like recalculation.

Diary--The personal diary includes a calendar and appointment book with programmable reminder alarms. Repeating alarms can be set to go off every day, week, month or year.

Address Book--Names, phone numbers and addresses are managed with an alphabetical index. Users may find entries alphabetically, by scrolling or by searching for a word or phrase. Users can retrieve telephone numbers visually or let the Portfolio do the dialing.

Operating System--The Portfolio's operating system uses MS-DOS 2.11-compatible commands. This enables MS-DOS software developers to easily adapt "well-behaved" PC programs to the unique features of the Portfolio, such as the 40-column by 8-line LCD. The equivalent of MS-DOS .EXE and .COM files may be stored in Program Cards instead of floppy disks, or executed directly when specially compiled.

The Portfolio also includes an internal file transfer function which, when combined with the optional Smart Parallel Interface, enables users to upload or download data files from their IBM-compatible PCs. For moving data within or among applications, the Portfolio includes a cut-and-paste function. For example, spreadsheet data can be easily incorporated in a business memo.

Portfolio Specifications

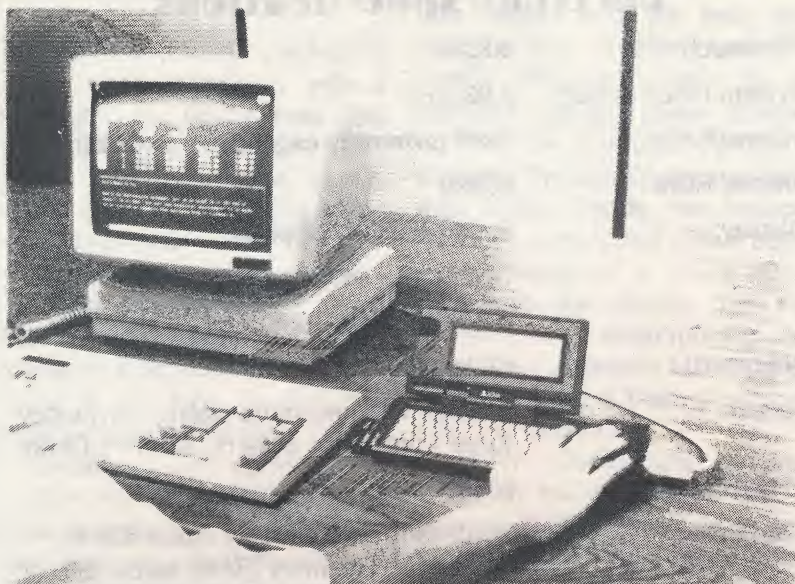
Processor:	80C88
System Clock Speed:	4.92 MHz
Internal RAM:	128K (externally expandable to 640K)
Internal ROM:	256KB
Display:	Supertwist LCD display Text mode--40 character x 8 line Graphics mode--240 x 64 pixels
Keyboard:	63-key QWERTY
Sound:	Speaker with telephone dialing, 25 melody tones from 622 to 2489 Hz and Key Clicks
Expansion Bus:	60 pin
Card Drive:	Solid-state card drive for optional 32K, 64K or 128K memory (RAM) cards; 64K or 128K programmable (PROM) cards; 128K masked ROM cards
Weight:	15.87 ounces with batteries
Size:	7.8 x 4.1 x 1.2 inches
Power	3 AA alkaline batteries or optional AC adaptor

Options

Smart Parallel Interface	For printers, PC file transfer and other "Centronics" parallel devices
Serial Interface	For modem, printer and other RS232-C serial devices
Memory Expander Plus	Expands main memory by 256K RAM. Includes additional card drive
PC Card Drive	Read/write Portfolio cards. Includes interface card for standard PC bus
AC Adaptor	Optional power supply for extended use

Portfolio Software

- o Lotus 1-2-3 File-compatible spreadsheet
- o Text editor with basic word processing functions
- o Calculator with five memories, four number formats and editable "tape" of calculations
- o Address book with virtually unlimited name and address storage and automatic phone dialing
- o Personal calendar/appointment book with programmable alarms
- o File transfer to upload and download files from compatible PC using optional Smart Parallel Interface
- o Clipboard to move or copy data within a file or between files or programs
- o Operating system similar to MS-DOS 2.11



With a Smart Parallel Interface, users can quickly transfer files between their desktop PC and Atari Computer's Portfolio palmtop computer.

The Portfolio is truly a multilingual system. In fact, the Portfolio is provided with one of seven different keyboard configurations during assembly. Each system includes one predominant language for menus and messages and two additional languages. Users can switch between languages with a few keystrokes. The three language formats are: English/French/German, English/Spanish/Italian and English/Swedish/Danish.

In addition to the basic software that is included with the Portfolio, Atari Computer executives are expecting that a wide range of horizontal and vertical market software will be introduced in each of the languages by third-party developers within the year. The company also plans to market their own line of program cards.

Options Provide Expanded Capabilities

The Portfolio has a 60-pin bus connector for use with proprietary peripheral devices. When used with the Serial Interface, the Portfolio can be connected to any peripheral that uses the industry-standard RS-232C serial interface. The Smart Parallel Interface supports standard

Centronics parallel devices, such as printers.

Optional Portfolio peripherals will include:

Smart Parallel Interface--

The \$49.95 Smart Parallel Interface can be used with the Portfolio's internal File Transfer program and PC File Transfer software to exchange files between the palmtop system and an IBM PC or compatible desktop computer. For example, users can download Lotus 1-2-3 spreadsheet templates created on their desktop PC and use them on their Portfolio. It can also be used to connect the system directly to a parallel printer.

Serial Interface--

The \$79.95 Serial Interface can be used to connect the Portfolio to peripherals such as modems, printers, or bar code readers. With suitable software, the Serial Interface can be connected to the serial interface of another computer so the Portfolio will act as an intelligent terminal.

Memory Expander Plus--

The \$229.95 Memory Expander Plus contains 256K of RAM that is used to extend the internal 128K RAM in the main unit and/or increase the

size of the internal RAM disk. Two Memory Expanders can be attached to the Portfolio to extend the internal RAM memory to 640K. The Memory Expander retains data stored when the Portfolio is turned off and extends the bus so that additional peripherals can be attached. The Memory Expander contains a second "card drive" that accepts a Memory or Program Card so users can run external programs and store data on cards at the same time, or both drives can be used to copy cards quickly.

AC Adaptor--The Portfolio's \$9.95 AC Adaptor is useful to users who want to conserve their batteries during long periods of operation. When the adaptor is connected, batteries are not required to power the system or peripherals.

PC Card Drive--Users who frequently transfer files between the Portfolio and their desktop PC will want to consider adding the \$99.95 PC Memory Card Drive to their desktop system. The card drive allows users to read and write memory cards with their IBM-compatible PC at high speeds. It also eases the process of downloading MS-DOS files onto Memory Cards for the Portfolio.

The one-pound Portfolio palmtop personal computer is the most complete portable personal computer system available today. But even if it were a 10-pound unit, it would be the most competitive system available for portable computer users in terms of price/performance.

Atari Computer has taken a quantum leap forward with the Portfolio's technology. The handheld system will be quickly recognized as the industry standard in truly portable personal computers.

[For more information on the Portfolio portable personal computer, contact James Fisher, VP of Marketing, Atari Computer, 1196 Borregas Ave, Sunnyvale, CA 94088 (800) 443-8020 or (408) 756-2000.]

October, 1989

ST Specials of the Month:

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Have a Happy Face

As those of you faced with quarterly estimated tax payments are all too aware, the 15th of last month was "Tax Time." It followed on the heels of Atari's 15 August release of its second-quarter earnings statement. Earnings were down by almost a factor of 10, e.g. 1 cent per share versus 10 cents per share in the previous period in 1988. Sam Tramiel said in early September, when challenged that Atari had lost \$200-300 million on Federated, that the company had "only lost \$100,000,000 and learned a lesson in the process."

The courts have now approved of the merger between *Time* magazine and Warner Corp, owner of 20% of Atari's stock. The first thing you normally do after a merger is tighten up the ship to help defray merger costs. So would you expect T/W to pour their fifth of Atari Corp. down the Wall St. drain? Only "market contrarians" would have answered that one correctly. For they are the traders who make money in stocks by "doing the opposite." And as of mid-September, my, but they would have made \$\$\$\$ on Atari. In less than three weeks, Atari, sold on the American Exchange, had doubled, going from \$6 plus to \$12 plus. The volume of trades in Atari stock was even more interesting; for almost a week Atari was in the "top ten" list of biggest trades. On one day, 1.3 million shares of Atari were traded, when the total shares traded on the AMEX was only 15 million. So what did the market know about Atari that we computerites couldn't fathom?

We also suspect that any attempts here to shine a light of reality on Atari will merely fall on the smiling happy faces of those com-

pany officials whose net worth had doubled, as of mid-September.

What's in the Box, Doc?

As the cartoon character used to chime out, so we ask, "What does Atari really have in the box for the U.S. this fall? And when do they plan to open it?"

Many of you have heard about "the stream" of products Atari unleashed in Duesseldorf at the Atari show in early September. Or you

ST UPDATE by Frank Sommers

may have "seen" Sam Tramiel, right after his return, on the GENie roundtable, where he explained that the Lynx hand-held game machine was "shown," and the TT030/2 and the STE were "introduced" to the 10,000 people/day who attended the three day outing. "Introduced" apparently means the item was not shipping yet, but would start selling in Europe in September and the U.S. in October, the STE that is.

The TT030/2, on the other hand, will start shipping in that mysterious "4th quarter," according to Sam. Similarly, the ATW (Atari Work Station) is already spread out in Europe 300 units strong, and Sam has said they plan to bring the machine to the U.S. before the end of the year. Sam concluded by pointing out that Atari is now starting, starting earnestly, to build up its U.S. market ... beginning September 15! Thus we have crammed "The Year of Atari, U.S." into "The 4th Quarter of Atari, U.S."

So, what's in the box? The STE? The Portfolio? The Lynx? The STacy? The TT?

STE = Enhanced ST

The enhanced version of the ST, will have a palette of 4096 colors to choose from, allowing use of 16 of them in low rez and 8 in medium. It will also have 8 bit PCM stereo sound, fine screen scrolling, support for light guns, paddles, and extra controllers, and will support Genlock without having to modify the innards of your 1040. Excellent? A 30-month wait for an improved 1040!

But Atari is faced with a perplexing conundrum. How do they empty their inventory of 1040's in the U.S. before bringing on the STE's. If CN is aware of this conflict, be certain the dealers are also. Are they ordering 1040's now, even though the price has been lowered by \$130 per machine? Generally, no! Why? Most understandably, dealers are waiting to be able to give their customers the latest and the best for the same price as the 1040 ST. But remember not all the dealers have heard of "The coming of the STE."

The plot thickens when you ask yourself, what about upgrade kits, obviously an easy trick to put in, say, three chips? During his GENie conference Sam denied there would be upgrade kits available. But some detected a stutter-step. And there were rumors that such kits might become available in that fantasy land called, Atari-Europe. The new regional reps are being so emphatic that there will not be upgrades for 1040's to STE's, that one wonders.

Lynx = Hand Held Games

And the Lynx color game machine, no bigger than a VCR cassette? Yes, that's in the box also with an initial run of at least 100,000. But it won't be marketed through your dealers. Atari's "mass marketing division" (you didn't know they had one?) will be sending it directly to stores like Toys R Us and other big discount chains, with luck, in time for the Christmas market.

TT = Thirty-Two Bits

There they were! Four of them glistening under the Duesseldorf

Atari show lights. Atari's answer to the Mac II. The mighty TT lives. It is referred to as TT030/2 because it uses a Motorola 68030 processor chip and because it has 2Mb of memory, expandable to 8Mb, and with the advent of four meg memory chips, all the way to 26Mb of memory. And there will be ports. Two parallel, two serial, and a MIDI port and one for hard drives or laser printer or CD-ROM. (What does the fellow do that has all three of those last devices?)

In addition to all this there will be two SDCL high-speed ports and an SCSI interface, plus a MegaST-compatible keyboard and slots for mouse and joystick. The sound will be 8-bit Pulse Code Modulation stereo with up to eight channels, depending on the software being used. The color monitor capability includes a range of resolutions up to 640 x 480, approximately what you now receive on your present monochrome screen. In mono life is even jazzier, with a high rez of 1280 x 960, plus a "duochrome" mode, which permits you to select any two colors of your choice in a resolution equal to the current mono monitor. And? And an option making it fully UNIX compatible.

The Opening?

Clearly, Atari's box is actually bulging. But as usual, the key question is when? When Sam says, "Shipping...." whether referring to TT's or STE's, he's also talking about a production line that's already rolling out machines, to permit him to project shipping dates. So we might assume that the TT's and the STE's are already in production. We know the Portfolio's are and have been for some time. Remember in August, both Sam and Sig said separately they would leave Atari if the STacy wasn't out by September. Well, our Taiwan swallows tell us they have discovered a bug in the first production run, and therefore you won't see the STacey until well after Xmas, say February of 1990. And the Portfolio? Shipping now to the mass marketers but Atari

only started accepting orders from dealers for it on 30 September. So add two weeks for shipping. And the TT? February might be a close pick; all that the dealers have been told is, "Sometime early next year." There is some question if the UNIX port to the TT will be finished by then. We would add that the STE, requiring an FCC fix, is in the box, and will arrive by Thanksgiving.

And so the question floats down, "What will Atari do to sell it all?" Are they likely to change their ways? Read on.

History Repeats

With a keen eye, sparsely drawn sentences and a solid understanding of the Atari computer business, a spectator at the spring Comdex was describing Atari products on display, but not for sale. Even handed, yet quick to highlight any aspect of a product or a program that limited its use, e.g. the keyboard on the Portfolio suits it more for note taking than serious writing, Frank Cohen, President of Regent Software, proceeded to present the best review of the spring Comdex that has appeared in any Atari directed print. His article came out in the August issue of Start magazine. It was all the more interesting because back at the time of Comdex, Atari was saying this product would be out in June, that product no later than August, etc. As you read this you are likely aware that none of the hardware has appeared in the U.S. as yet, except possibly the Portfolio. The article could have been prepared three months later than it was, and still be immediately current, except for personnel. His comments on the then new marketing/sales team at Atari (Mike Dendo, V.P., Sales; Joe Mendolia, V.P., Marketing; and Antonio Salerno, Director, Software Marketing) are equally interesting: "Atari's future in the American market rests squarely on the amount of time these key employees stay with the company."

We understand Mike Dendo either fired most of the regional reps for not meeting their Atari norms

and then was fired himself, or they were all fired together. (Who is it at Atari that presumes they know "All The Right Moves" for the U.S. market? After all, Sam handles the world, but...) In another move, somebody took Joe Mendolia's V.P. title away from him, and he is now gone.

Hats off, Frank Cohen.

Need a Needle

Cost conscious SLM 804 and DeskJet printer users, which is most of us, dream of merely refilling their ink or toner cartridges, versus buying expensive new ones. For the 804 laser printer users the problem is simple, if, that is, you can locate bulk toner that is compatible with your toner cartridge (not all toner is). Just pour it into the toner well and put the old cartridge on top of it. (If you find a supply, please let us know.) For the DeskJet user the solution may seem more complicated, but appears nearer at hand. Simply insert a hypodermic needle filled with Schaeffer Script black ink into the air hole at the top of the cartridge. But the trick is to do it before the cartridge well is totally empty and dried out and yet not so soon that it will pool above the sponge inside the cartridge and run out the bottom. Dick Biow of Winter Park, FL tells us the "inventor," Larry Rymal, advises you do it "when the cartridge feels light (less than 1.5 ounces)." Note that a full cartridge weighs 48.5 grams and an empty one 26 grams. So after you've used up about 1/3 of your ink, say 7 grams, add some.

Or Just Upgrade?

Thanks to Wes Marlin of Gary, Indiana, there is also a way to slow down the ink consumption of your HP Deskjet printer. Upon calling HP to report discrepancies in cartridge life, he was told he needed a kit they'd developed to "correct short ink cartridge life." The kit was free, easily installed, and obtained by calling HP Corvallis Service Center 503 757-2002, 7:30 am-5:00 pm Pacific time. Thanks for the tip, Wes.

Electric Bills

Wait, oh, how we have, for our bank to go electric. So we could let our keyboard do the paying. While most of us are still waiting, the wave of the future may have washed over us. Instead of the bank paying the bills why not a data service, where you modem them up and type away? Well, it's here. *CheckFree* is not only a piece of \$49 software but it's also a company. To be sure, you need *pc ditto*, the IBM compatible emulator, to run it. But imagine, booting the program, typing in all your bills onto screen-displayed checks, and then with a tap of a key, the modem dials CheckFree Corp., 720 Greencrest Drive, Westerville, Ohio 43081 (1-800-848-6070) and squirts the data into their files. Then? Then, within three days your creditor receives a paper check from them, or an electronic bank transfer thru the Federal Reserve System if the merchant is so connected. For your records you have your own printout of all payments, plus a legal notation on your bank-statement for each payment that satisfies all tax and other requirements. You can even have recurring standard sum payments made each month without even dialing, e.g. mortgages, insurance, loans. If you also like to use accounting software to keep records, there are two IBM programs available, *Quicken* and *Managing Your Money* that import data directly from *CheckFree*.

The fee is \$9 a month for 20 checks, \$3 for each extra 10. But add it up. Postage for 20 checks is \$5; \$2.50 for 10 extra. So you can pay 30 bills for only \$4.50 more a month. That's \$.15 a bill.

Check's in the Mail

The coupons for *pc-ditto II* are out. For newcomers, "*pc-ditto II*" is a user-installable, solderless circuit board which clips inside your ST ... and is warranted only when installed in an Atari with no modifications to the 68000 chip." The coupons represent a \$150 "rebate" for registered owners of the original *pc-ditto*, who want the \$300 new ver-

sion. The coupon states that the offer which originally expired 31 August 1989 has been extended to 15 October. Reason: delay in getting "product" from the manufacturer. Avant-Garde's new "press receiver," Dan Powell, states people who return the coupons ("with money orders or cashiers checks only") should receive the product in "a few weeks." When we pressed for a more specific date, Dan remained resolute with "a few weeks," admitting he wasn't sure if the manufacturer had actually started production or merely scheduled it. We guesstimate you will see the eagerly awaited, super-speed IBM emulator on dealers' shelves within 7-10 days of reading this. So if you have need to run IBM software on your ST and you plan to buy *pc-ditto II* but are not now a *pc-ditto* registered owner, should you run out and buy the old *pc-ditto*. Then race your warranty card down to Florida to Avant-Garde before the deadline? Better check first and see what the cut-off date for the coupons is (904-221-1904; 9 to 5 EST Monday thru Friday).

Competition!

While some of you think America was built on land we "got" from the Indians, others know it was competition that built the greatest country in the world. And that's what we've got with *PC Speed*, Michtron's IBM emulator, that may hit the streets before Bill Teal is able to ship his board. The *PC Speed* board piggy backs on the 68000 chip and, according to Michtron, runs your ST as a CGA PC at the speed of an IBM AT. They claim its Norton utilities rating is faster at 4.0 than *pc ditto II*'s Norton rating of 3.0. The emulator is scheduled for release on 1 October, so it just might be first on the shelves. At \$400 it is more than the \$150 cost of upgrading *pc ditto* to *pc ditto II* or the \$300 price of *pc ditto II* for first owners. But not enough more, so that whichever emulator performs the best will likely be the winner. Both emulators apparently need drivers for the Atari

laser and Michtron is working on *PC Speed* being able to run *Windows*.

Spurious Reviews?

At Atari shows, looking over the shoulder of someone doing a demo of a product not yet released is essential to be able to tell Atari readers about the new item. Then the question arises is it legitimate to do a "review" of a product via the "over the shoulder" method?

That is what Michtron suggests was the source for the data about *Fleet Street Publisher 3.0* that appeared in two full length reviews of the product in the September issues of *Start* and *ST-Express* magazines. Michtron had not released the product when the reviews were done. In fact as you read this it may still be a matter of a few days before it hits the shelves. Nor had Michtron given out any beta copies for review purposes. Part of George Miller's perturbation about the "spurious" reviews were the conflicting and inaccurate statements made about the product. As a possible contender for the top of the ST DTP software pile, *Fleet Street Publisher 3.0* repairs several of the serious omissions in the earlier two releases. It will flow text from one page to another. It will flow text around graphics. It will import text from *WordPerfect* and several other word processors with the tags intact. It will print out multiple pages. The two reviews in question did not accurately reflect those capabilities. However, because of the details, accurate or inaccurate, presented, particularly in the *ST-Express* review, either the reviewer was working from a European copy of the coming 3.0 or using 2.0 and adding projections on what they presumed would or would not be in version 3.0. Michtron says the screens in the review were from version 2.0, not the coming 3.0.

Where's TOS

That's the name of a nifty little shareware program that finds anything you want it to within a given hard drive partition or single floppy.

(Continued on page 17)

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This and That

By: Dave Small, (c) 1989

What I Did This Summer...

Funny, I never had a writing assignment in school of what I did over the summer. I got to thinking about some of the things I've done, they led to other things, and poof, 20K worth of text appeared. That's what you're reading now.

Looks like other people got off easy; only 12 years of writing Summer Vacation tomes in school. For me, it may end up being as long as I live. And I didn't even get to fill out an application for what type of person I wanted to be ...

Look, I Don't Hate UNIX!

A few columns back I wrote about the computer pro's operating system, UNIX. Unfortunately, I didn't use terms such as "greater than sliced bread," "the ultimate programmer's development system," and "has replaced Sandy's Role In My Life" (to put it mildly). I was rather harsh on UNIX for a beginner-level machine (Atari TT). (Heck, the ST is hard for a beginner.) In particular, having just learned UNIX, I was very much in tune with the agonizing learning curve it represents.

Very few UNIX people caught the wry paragraphs at the end, probably because the steam coming out of their nostrils was fogging their vision. I said that I owned two UNIX boxes, one with rather hot X-windows graphics, "and I can stop anytime," the classic addict's phrase.

A few reams or so of hate mail later, I thought I'd better point out in less subtle terms that, gee, if I hate UNIX so bad, why do I own two expensive UNIX machines? Why do I have three-hundred-odd dollars

worth of *just* X-windows manuals (one was \$50!), not to mention many a sage word on System V, BSD, UUCP, Usenet, and whatnot? ("Life With Unix" is SUPERB!) Why have I gone to nearly every bookstore in Denver, finally finding heaven in the Auraria campus bookstore, looking for UNIX titles? (They even have the AT&T official guides!)

I did mean to point out that releasing UNIX onto a beginner population is a dangerous trick. AT&T tried that with their 7300, "The Unix PC," and it flopped. The 7300 had a nice windowing interface on it, was pretty friendly, had a mouse, and whatnot. Even so, flop.

Anywho, sorry if I came across as being too hard on UNIX. You can quit sending hate mail to:

"...hplabs!boulder!tcr!gadgets!dsmall," which is machine #1, or

"...hplabs!boulder!tcr!gadgets!unix!dsmall!," which is machine #2, now.

(I *told* you I was networking them.)

Time Slicing

I've been rather busy this summer. There are more projects cooking than I have time for. I thought I'd tell you about some of the ones I haven't been talking about, and not say much about the Spectre GCR, which I'm just a wee bit tired of talking about. I have more going on in my life than one circuit board and a few thousand lines of 68000 assembler.

(One funny: in another magazine I write for, there's a letter to the editor chiding the magazine for printing my stuff, which the letter calls just an ad for *Spectre* and *GCR*. The column I did for that month consisted entirely of ST tools I recommend, hardware and software, and barely mentioned *Spectre*. I didn't know about the letter until I picked up the magazine at the post office and read through it!)

GCR Stuff

[Please insert three war stories from the GCR development here mentally, okay? Everything that could go wrong did, as per Murphy's Law, and we're *still* shipping Sept. 21. But maybe this is a new and neat concept for columns; I just ask you to make up the stories mentally, and I don't have to use up column space telling them to you.]

<grin!>

HyperWeb and the Past

I've learned about UNIX because I believe it has a place in the future. Now careful with that phrase; I didn't say "the" place, I said "a" place. I think it will be part of the derivative machine the industry is taking halting, hesitant steps towards.

I see computer systems as gradually merging. Steve Jobs, who played the integral role in making Macintosh, says, "good artists create, great artists steal;" this is true in the computer age. So we have Apple using a hierarchical file system (HFS) which looks a lot like MS-DOS 2.0--folders/subdirectories--which looks amazingly like UNIX; we have pipes in MS-DOS ("redirection"), still only partly and shabbily implemented, which are obviously UNIX based; we have the "C" language, which was born and bred on UNIX computers, and so on. And we have OS/2 Presentation Manager which bears a resemblance to Mac ideas which resemble some earlier Xerox PARC ideas, although I'm careful to say Apple came up with a lot on their own. (If you hear the sound of someone saying something that can't be sued over, you hear correctly.) Lots and lots of borrowing going on.

In the meantime, HyperWeb^(tm) is catching up with me. I've already written that it's distracting me enough to interfere with finishing up

the last fiddlies on *Spectre GCR*, it's lots more fun to dream and speculate about something completely new than to get the last bug out of the interrupt handler of *GCR*. (*GCR*, by the way, is done as of this writing, although I'm sure a few bugs will pop out of the woodwork; this IS release 1.0 of *GCR*, and 2.0 of *Spectre* in general). But I think about *HyperWeb* a lot.

When you're trying to design something new, you first have to go out and see what's out there. I'm designing *HyperWeb*, which I'll loosely describe as an entirely new concept for a disk operating system. While my intuition has been wrong before (I didn't think many people cared about a 128K ROM Mac emulator) and has been right before (I thought people would care about a Mac emulator in general), I feel real strongly that *HyperWeb* will do to PC's in general what *SideKick* did for the IBM—change entirely the way people use computers and disks, way for the better.

(Oh, not entirely. Someone who only knows how to type "123" to get into Lotus at the A> prompt might not need *HyperWeb*. But the operations that *HyperWeb* provides are so essential that they should have been put into the machine's ROMs to begin with.)

Anyway, so while designing *HyperWeb*, I don't want to reinvent the wheel. Time to become acquainted with the industry. So I'm familiar and then some with the Macintosh, the ST and GEM, and the IBM PC; I own an Amiga (yes, I do! Even if you throw vegetables at me...<grin>), and have seen its ideas on multitasking, and its atrocity of a command line language; and I own a couple UNIX boxes, one older, one darn near state of the art. (I mean, 8 mb ram, 100 meg disk, and a tape streamer, plus a 20 mhz 68030, cooks right along compared to the ST.)

Oddly enough, I'm finding I don't have to borrow. These machines ALL need *HyperWeb's* toolkit. It's reassuring to me, because if I had found it on (say) UNIX I'd know fif-

teen other people would be working on an IBM version; as it is, *HyperWeb's* new territory. And every now and then, I see a program which encompasses a little part of *HyperWeb* hit the market, to good reviews, and I smile a lot, because it shows that the leading edge I'm on is the same leading edge other developers are on.

I suppose you'll want to know if the *ST HyperWeb* will be my first version. My answer is, right now, I don't know. Right now, I have the concept, what I want it to do, fairly well figured out, and that's the vital part. I haven't worked out all of what I want the screens to say, what the all-important user interface should look like. (I'll probably cook that up in *HyperCard*, which doubles as a near perfect demo-maker). In any event, I'm not much at visual art, and will probably get help from someone who is while designing those screens.

But it doesn't really matter; in order to be portable, much of *HyperWeb* is going to have to be written in "C"—a language I have a mental block about. After that, it should be a matter of moving from machine to machine with the usual machine-specific things.

I'm telling you this not to hype *HyperWeb*, but to give you some insight into how these programs are developed. Someone works on many machines, starts dreaming about what they'd love in a machine's operating system; if they value their dream enough, they write it. And if they value it enough that they think other people will, too, they do their homework before marketing it.

Most of the really good programs out there began as labors-of-love; most of the really big flops began as cold, committee-designed programs to-go-make-us-some-money.

Don't be surprised if *HyperWeb* ends up being the piece of the machine—we're-headed-for that I contribute to the future, and Mac emulation just a footnote. (And oh, yes: "There is almost nothing you

can't accomplish if you don't demand the credit for it."—Roland Green & Jerry Pournelle). <grin>

Le Book

Also fighting for time in the limited CPU I call a brain are two books. *White Sorcerer* has been written once and completed; to my surprise (really), it got a reject slip. See, I'm kind of spoiled; my first article, on how the Atari 800's graphics worked (for *Creative Computing*), was accepted, and rejects have been a rarity since then. But fiction is such an entirely new, and wildly fun thing to do. Oh, yes, it's hard ... but there's something about creating something totally new that makes it worthwhile.

Like the old joke says (perhaps only funny to writers), "God invented blank paper to show writers that creating the universe wasn't so easy after all."

The entire *White Sorcerer* book originated in the Boston song "Foreplay," which is an instrumental piece, third song on the first side of the first album—and in my humble opinion, the finest first side ever made in rock music. It fits me. (And, of course, other people, who are different, have other Best First Sides; I'm not trying to convert you here, okay?) The book took shape while driving and listening, while waiting for assemblies ... essentially, anytime my brain had spare time to devote to fun stuff.

Teachers, I believe, used to call this "daydreaming." From my perspective of twenty years later, they blew it. All you have to do is to DO something with those daydreams. (Heck, people get paid to interpret night-dreams; why shouldn't I get paid to implement daydreams?)

So I wrote it up, hired a freelance editor to tell me all that was wrong with it, and ended up with a stack of paper covered with red markings. Punched them in, sent it in, and got back the nicest two page letter—not a xerox, not a mimeograph—saying the publisher wasn't sure they were making the right decision at all, had read and reread

it, but they weren't going to publish it, and please send us your next one.

Talking to other writers, I get the idea that this is not the usual reject treatment, putting it mildly.

Well, having read much, gotten other opinions, and in general knowing more than I did five years ago, it's time for a rewrite.

Some things will stay the same; Gerry Johnson buying time for his people to escape a mob at the Center for Disease Control in Atlanta; Nimue's heroic effort to halt the Black Plague in 1342 before it destroyed mankind (Nimue was Merlin's apprentice); Kevin Anderson summoning a demon to unleash on the Black Sorcerer, it's the only thing he can think of that might do anything ... and losing control of the demon, and having it turn on him ...

It's all there, waiting for me to finish up this bug in *Spectre GCR* and to decide if I do it or *HyperWeb* first, or alternate days, or what.

So if you see me staring off into the distance at a computer show, and if it takes me a second to jerk myself back into reality, I'm probably walking the mines of Central City (granite, you see, is very strong in the earth's old magic, and shields those within from magic outside) with Kevin and Ginny, trying to figure out a way to stop the Black Sorcerer from advancing up Clear Creek Canyon.

Book number two waiting-in-the-wings comes on me most often at stoplights. I really don't like stoplights; I bet Hell has lots of stoplights in it. I pass the time dreaming about #2. You already know a lot about book number two if you read the columns on Nikola Tesla and SDI, (which somehow got mistranslated into Dave wants *Spectre* used on SDI). Imagine a book on the ideas therein actually happening, and you've got it.

* * * * *

At this point, Writer's Hell occurs: namely, a wailing baby. This takes all the thoughts of where the column was leading to and drops them on the floor, to shatter. What's

worse is you can't really pick them up again; perhaps I need to go to an outliner word processor, so I at least have something to jog my memory.

Where was I? Oh, yes, I'd just finished up with book #2, and was going to summarize.

* * * * *

I suppose the best description of what I do is "Questioner." I walk around all day, asking questions; if you've ever seen George Carlin, it's much the same thing. Ask a new question, and you may find something out. "Why doesn't magic work anymore, yet it seemed to work many years ago?" (*White Sorcerer*). "Why can't a 68000 CPU ST run Mac software?" (*Magic Sac / Spectre*). "Why aren't disk files handled in a manner consistent with what they truly are, not a manner convenient to some DOS programmer and the computer?" (*HyperWeb*).

It's got its pluses and minuses. Probably 90% of the questions don't get anywhere, so it's a lot like gold panning. My wife needs eternal patience. Some of the questions are mighty unsettling or unanswerable, too.

Being Known and All That Stuff

I suppose it's terrible to say so, but being well known really has its down side. It has its fun side, too; my parents hit a shopping mall in Canada during their wedding anniversary trip, found a computer store, and found a *Spectre 128*. Helpful salesman asks if they know about it. Oh yes, they said, Dave Small's our son—and so on.

(Remind me to ask my parents if this makes up partly for the teenage years).

And it's fun showing up on covers of magazines. But. Before you feel envious, consider that I really can't wander around a computer show as you can, taking it in, asking questions, and having fun. First, I usually get barraged with questions all day, and go hoarse trying to shout over the PA system; it's difficult to even get out of the booth. It took a barricade of tables

last year to handle the *Spectre 128* crowd at Fairfax.

Second, if I take five steps down an aisle, seven people want to Just Ask Me One Quick Question About The *GCR* (have I heard this line before?), and I can't *see* anything.

Third, if I see a product that's neat, the sellers want to trade for *GCR's*, get endorsements, are you going to review it for *START?*, and what not. I can't just hand 'em my credit card and get the darned thing.

It came to the all time worst when I had to go to the bathroom last year at a show, and four people followed me in, chatting all the time. This was downright claustrophobic.

[Which reminds me of a funny story I really should retell. I was at the West Coast Faire a few years back, and dropped off a Pournelle book at the *Byte* booth for Jerry Pournelle to sign. I was in the bathroom, doing what you do there, face to the wall; I was wearing my "David and Sandy Small World Tour" T-Shirt. Behind me trumpeted (he talks loudly) Jerry Pournelle, saying, "Mister Small?! Your book's done and it's at the *Byte* booth."

Problem was, I was so startled that I came very close to turning around; and if I would have, I'd have, well, gone on Jerry's shoes thus ending my career, at best.]

This year at the Fairfax show, I'm not planning on having a booth; in any event, we're so backordered with the *GCR* that I haven't any to sell (the ones that are built are already pre-sold, and it wouldn't be fair to sell them!). Maybe if wear a Groucho Marx nose-and-glasses, I'll get to see some of the neat stuff there; it's been my favorite show for two years straight.

Hence, don't mind if I define being well known as whether or not you can hit the bathroom by yourself. And on that, I envy you.

Finally, My Favorite Thing This Whole Summer

There were these two hard disks. Now in the history of hard disks on this world, there have been some true horror stories; I seem to

collect more horror stories than the average ST user. Oh, well. The *Spectre* development went a lot faster when I got an ICD tape backup unit and started doing backups whenever I added stuff; that way, when the disks flaked out, I could recover more quickly.

But these two drives ...

On one, I'd collected many disks, spent hours sorting and cataloging and noting them. I was getting ready to back it up to floppy when the disk crashed and lost its track 0 sine-wave alignment track; it's *gone*.

On the other, I lost important records and development work on *Spectre*, and NOTHING IS MORE IRRITATING THAN FIXING BUGS YOU HAVE ALREADY FIXED! Excuse me. Both were 20 meg drives.

One fine August day, my neighbor and I went out to the rifle range. I had my hobbyist pride and joy, an AR-15 rifle with a 'scope. (Add a few parts to it, it's called an M-16.) Now those of you that hate guns are

probably not going to understand this, but I like guns, because target shooting is some of the most intense self-competition there is; it's just you, your ability to hold the sight picture perfectly, the target, and an absolutely unforgiving hole in the wrong place if you blow it. The whole Dirty Harry macho thing or the assault rifle stuff, I'm not into.

But the time had come for these two \$%^@#\$%^ disk drives.

We took out two six volt batteries. Negative to ground; one battery's plus to +5. Next battery from +5 to +12. It wasn't exact voltage, of course, but it was good enough. The drives spun up with their drive-whine, probably laughing amongst themselves about how much data they'd lost.

We hiked back a couple hundred yards. Set up the AR-15, put the scope up to 9 X (where I could about read the warranty sticker on the drives), and put a hole through them. In fact, several holes.

Okay, I admit it, I riddled the damned things.

First hole through it, the platters inside, spinning at 3600 RPM (60 revs/sec) came to a stop within about a quarter inch. All that rotational energy grabbed the drive, threw it far up into the air spinning, and scattered pieces to the four corners of the earth.

Golly. Head crash. Awwwww.

I was grinning from ear to ear, Sandy reports, when I returned home later, with two officially mangled disk drives. They rattle because there's still loose pieces inside of them, and they have .223 holes in the cover.

I took them downstairs and set them on top of the drives I'm using.

"See these drives?", I said to the disk drives. "You screw me up, and this is what will happen to you." I left the shot-up drives on top of the stack.

To this day, those working drives haven't as much as sneezed.

And that, teacher, is what I did with my summer.

See you in the fall--and come to the WAACE show! See you there!

ST Update (Continued)

That's also the question that has been plaguing Atari's release of TOS 1.4, the latest operating system, ever since Jack Tramiel said it would be shipped in ST machines from "this day on," i.e. last spring's Comdex. Well, it has finally been released. In fact, it's on dealer shelves for \$80-\$100 in chip form, ready to upgrade your existing machine. Its speed and improvements are lauded by practically everyone. We suspicion that it may undergo "improvements" right up to the time the TT is released in this country in an effort to allow the TT's to run as much of the ST software as possible. But we are not suggesting anyone wait to employ it, even if that were true. Check to find out if you need the 6-chip or the 2-chip version. Most Mega ST's will require the 2 chip version. Unless

you are a fast and flawless gun with a soldering iron and confident about soldering in jumper wires, you should consider dealer installation, \$25-\$40 more.

Inciting the Mac Addicts

According to the article in the October issue of *MacUser* magazine, loyal Macintosh users might be outraged by the thought, but as the magazine stated, the ST laptop with the Mac emulator "may turn out to be the hackers choice of laptops." In a short article preceded by a picture of the Atari STacey laptop, *MacUser* readers learned that by acquiring a STacey, some Mac ROMs, and a GCR Mac emulator, they could "cobble together" a Mac laptop for less than \$2500, about half of what they may have to pay for a similarly powered Mac laptop. The latter was announced on the 13th of last

month, and expected to weigh in at a hefty 25 lbs. *MacUser* mistakenly thought the STacey and the GCR board would be available by 15 September. Though Small started filling the "several thousand" orders he already had for his emulator the last week of September, as we noted, no STacey this year. It's not Atari's fault, but the publicity of having the first Mac laptop out there would have been nice.

What's in Your Pocket?

Maybe it's a Pocom. The handheld computer competitor to the Portfolio. Made just down the street from Atari, its three advantages are 640k of memory, two program slots, and 80 columns by 40 lines of screen display (versus Atari's 40 by 8). The major disadvantage? \$1,995 versus \$399.



Mac Resources, Part 2

Last month we discussed Mac resources and the purpose they serve. Basically, it is a method of storing information in a "structured" fashion. This allows non-programmers to customize the information for a given task. I read recently that Macs are currently being used in a foreign exchange office with word processing support for up to 50 different languages! You can bet Apple didn't write 50 different versions of *MacWrite*. A good first guess would be that different language fonts were used in place of the english ones. Remember the Font Type resource listed last month?

Ok, you just read the last paragraph I'm sure you agreed with every statement. Sure you say, Apple had this grand vision way back, when the Mac was under development, to implement this clever scheme. Oh yes, Apple's software programmers were smart. Or was there another reason? Let me tell you why resources came about in a language more easily understood by everybody; *it saves money \$\$\$*.

About Finder and System, Again?

Remember when I wrote the first Tips column? It appeared in the March 89 issue of Current Notes. We were discussing how to boot the

Mac and why the Finder and System files must be available to the operating system. The reason was "When the Mac boots, only pieces of the Finder and System are loaded." It's time to clarify what is and is not loaded on bootup and why.

First off, Finder is a program that allows you to display disk directories, copy and erase files, etc... that's it! The desktop you see is simply a program called Finder running. When you Quit an application, the Finder program is run (i.e. desktop comes up). This is why you need to keep the Finder file present! If it were nowhere to be found, where would your application quit to?

You can replace Finder. There are many other programs that replace Finder in the public domain. These programs are commonly called MiniFinders. The reason for the name "MiniFinder" stems from the fact that Finder replacements are usually smaller and don't perform as many tasks. This is not always true as there are ways to replace Finder with *HyperCard*. Yes, your "default desktop" can be the *HyperCard* home card!

What about System? Simply put, the System file is one big file containing nothing but resources available to "The System!" Hey, hey, this is starting to make sense (I'll admit it, I'm having a great time writing these articles. It forces me to learn some neat stuff). We know Finder is loaded when it is "run," but what about System? When does it get loaded? This question will be answered shortly.

Resource Shuffling

As stated, System is a file containing a bunch of resources for use by "The System." This means that any program written for the Mac can use the resources located in the System file if required. For example, *MacWrite* doesn't keep copies of every font in its own resource fork. It uses the fonts stored in the System resource file. This brings up an

interesting note. If you haven't already figured it out, the Font/DA Mover is simply a font and desk accessory resource mover! It simply copies and erases these two resource TYPEs more conveniently than ResEdit. The resource TYPE for desk accessories is DRVr.

If you remember last month's example where we changed the information contained in the LAYO resource to affect characteristics of the desktop layout, you may be interested in a program called Layout. Layout's purpose is to graphically display the information contained in the LAYO resource by displaying a "simulated" desktop and allowing you to change icon spacing by moving icons around. Layout is in the public domain. Back to the discussion.

\$\$ Money \$\$

Now we can answer two of your most burning questions. How did resources save Apple money (or should I say, how did it make the Mac affordable) and when does the System resource file get loaded? The System resources are loaded as they are needed. This implies that resources can be treated as chunks of information. If a resource is required by an application program, it's loaded. If there's not enough memory, another one from memory is dumped. Here's the key. The original Mac only had 128K memory installed. The System file can be megabytes in size, i.e. either more memory was required to load it all, or chunks of information could be loaded on an "as needed" basis. Resources reduce the amount of memory required for an application to run! Resources enabled Apple to sell a 128K Mac that could run reasonably sized programs.

Resource Management?

In techie talk, here's exactly what happens. The resource fork contains two pieces of information. The resource data and a resource

map. The resource data is the resources themselves (for example, the actual font data contained in the FONT TYPE resource). The resource map contains an entry for each resource that provides the location of its resource data. The resource map is like the index of a book. Whenever a file (i.e. an application) is opened, the resource map is loaded into memory. The map remains in memory until the file is closed. Normally the resource data is read into memory as it is required. You've no doubt noticed programs loading information to display some dialog box the first time it is displayed. After the resource is loaded into memory a flag in the resource map is set to indicate "resource is in memory." The next time that resource is needed, loading it from disk will not be required.

If memory is full and another resource is required, one or several resources may be dumped to free up enough memory for the new resource. This process of juggling resources may seem scary to programmers, but don't worry, Apple provided a way to "lock" the resource in memory if you don't want it dumped (or typically called "purged") from memory. Resource management can be visualized as a fancy way of performing disk caching or implementing overlays.

Error!

I made a big blunder last month about resource forks. I stated, "The data fork is the programming code that makes the application do what it is supposed to do." This is totally incorrect. In fact, the programming code is contained in a resource TYPE called CODE which is located in the resource fork just like any other resource. The incorrect information was obtained out of the June 1989 issue of MacUser. Sorry for the misinformation.

The correct information was obtained from **Inside the Macintosh Volume I** where it is stated, "The resource fork of an application file contains not only the resources

used by the application but also the application code itself." The data fork of an application file can contain anything an application wants to store there. It has been my experience that many if not most

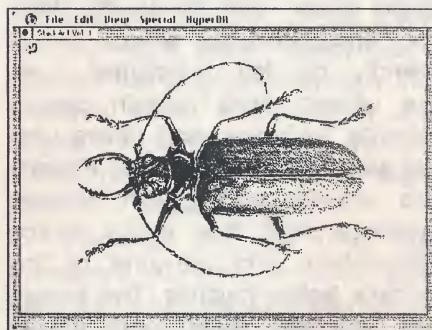
programs leave the data fork empty. Next month we will really start using ResEdit to its fullest, so get a copy from the Current Notes library (#M09) or from your local BBS.

New Spectre CN Library Disks

by Jeff Greenblatt

This month, Current Notes is releasing five new PD and Shareware Spectre compatible (128K ROMs) library disks. For those of you using the Spectre with 64K ROMs, I recommend the excellent CN Magic library listed elsewhere. If you like and use any of the files, don't forget to make your shareware donation(s) to the author(s). Here is a rundown of what each of the new disks contain:

#S37D, HyperStacks #4, contains StackArt Vol.1 with over 100 high quality clip art (see screen shot below) for use with HyperCard or HyperDA. This clip art can be copied to the clip board or scrap book for pasting into other documents.



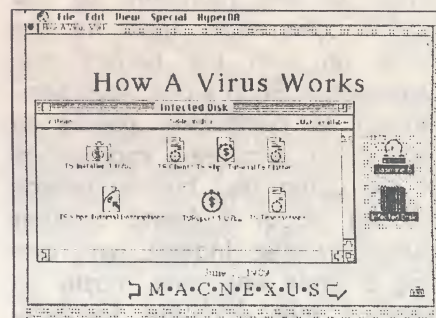
#S38, Games #6, contains fully working versions of Cairo Shootout 1.2a, Puzzl 1.1 (see screen shot below) and StuntCopter 2.0.

These programs were placed in the public domain in memory of their author.

#S39, Utilities #5, Init Cdev 2.0, About Init Cdev 2.0, Moire Cdev, Moire ScreenSaver Docs, Moire Cdev

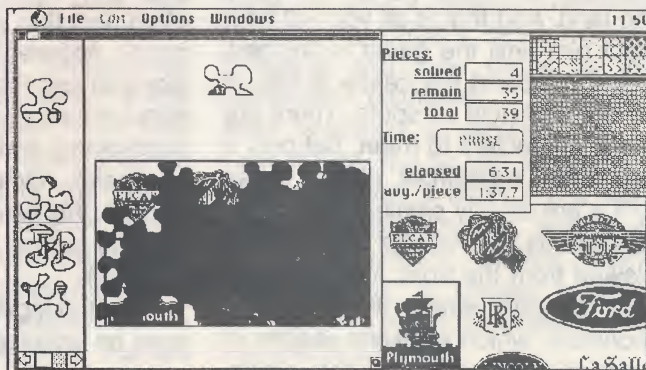
to Init, Hierda .9983, Hierda release notes, RAM Check, RAM Check Info, SnapJot, SnapJot Docs, SnapJot-Demo DA, SuperClock 3.4, SuperClock Docs, Timepiece, TimePiece Docs, VirusDective 3.0.1, VD 3.0.1 Docs, WindChooser 1.0.1, Wind-Chooser 1.0.1 Docs, Why 1.0.1, and a fully working but limited demo version of QuickKeys.

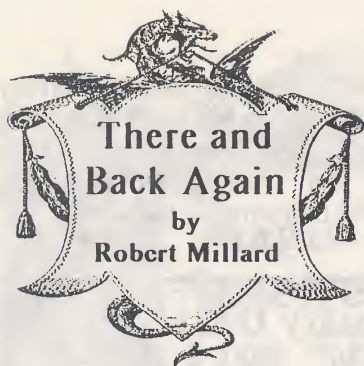
#S40D, HyperUtilities #3,



contains four stacks for use with HyperCard. They are Christopher's XSTAK4, How a Virus Works (see screen shot above), iConjuror, and Progress XCMD 1.1.

#S41, Productivity #1, contains five personal productivity packages. They are AlbumTracker 2.01, Amortize 2.4, CheckBook 2.0, Road Atlas, and Smallview 1.3.





DEATHBRINGER

Dungeonmaster Drained of Its Blood

After Cinemaware decided to market the European game *Galdregon's Domain* in the United States, they felt it needed a different title. Nowhere in the quest is there a reference to Galdregon, though you might assume it is the lone hero's name. One company source thought the chosen title, *Deathbringer*, was too good for the game, and could've been saved for a better, forthcoming release. Having finished the game, having restored a sense of the mundane to the Domain, this writer feels he has come up with the perfect tag: *Depthlacker*. Such a one word sentencing is particularly painful to hand down, since early impressions of the game had bulletin boards buzzing about it being another *Dungeonmaster*. Indeed, over one meg of code was used, mostly on graphics that compare favorably with FTL's benchmark CRPG. But the game itself is insipid, and sometimes, inexcusably sloppy. Nonetheless, *Deathbringer's* artwork is a siren song that will lure many a fantasy gamer.

Deathbringer is a first person perspective fantasy game that begins in front of King Rohan in his castle. He will ask that you recover the five gems of Zator so that the evil Azazel cannot gain control of the land. And that is all you will hear from him until the game is finished. Walking around the castle is safe in all but a couple of spots. There are many characters to meet, but only a few offer substantial clues. These NPCs are slightly smaller, but just as detailed as the *Heroes of the Lance* viewed from the front. You can walk right through almost all NPCs and monsters, which weakens realism in combat. After mapping the castle,

and possibly rebooting due to some fatal encounters, an accumulating sense of stasis is confirmed: there is no animation in the game, not even minor movement from monsters. Contributing to the static look and feel is the fact that true 3-D scrolling is not employed; walls scroll when you change direction, but the graphic window blacks for an instant with each forward step. Sometimes *Deathbringer* feels like an illustrated text adventure, a feeling that is further reinforced once you leave the castle for the outdoor world.

The land of Mezron is mostly grassland with nine forests, six huts, four towers, a cave, a temple, and a labyrinth. Like *The Bard's Tale II*, *Deathbringer's* outdoor world is too small: forty mouse clicks will take one from the western border to the eastern border, and twenty-five clicks cover north to south. Here, too, encounters are almost always friendly, but few substantial clues are offered. Huts contain clerics, wizards, barkeepers, and others who will assist you in your quest. Forests are actually mazes with specific entrance sites; they evoke a nice atmosphere and are one of the game's better touches. The towers are simplistic, eight room mazes that usually contain an item needed to retrieve a gem elsewhere. The Cave of Doom's stunning, surreal graphics look like a Roger Dean effort, but that still picture feeling is most apparent here. Medusa's labyrinth and the Temple of Set (talk about mixed mythos!) round out the sightseeing, and offer a better sense of spatial dimension. Still, travel through the game world leaves you with the feeling of having seen it by postcard.

Deathbringer has no music, not even an opening theme, but it does

have nine excellent digitized sounds, including two that might induce tachycardia upon first hearing. The forest sound that is heard every minute or so is particularly effective. If nothing else, the designers have shown that this is a scarcely exploited aspect of CRPG design that can contribute greatly to a game's atmosphere.

Player statistics are very much like *Sundog's* system. There are no levels or experience points. Three attributes—health, stamina, and strength—appear as bar graphs. Health is hit points, strength is damage done, and stamina is similar to dexterity. Strength and stamina diminish with time, and are increased by eating and drinking. Unfortunately, food and money for ale are scarce in Mezron, and one of the game's bigger challenges is to accomplish your objectives efficiently with limited supplies. Potions that raise strength or stamina greatly for two real-time minutes can be found or won. Without levels, Galdregon (or whatever his name is) can never become a superman, so expect to die and reboot many times. Considering this, restarting without rebooting would've been a nice feature to include.

As *Alternate Reality* and *Questron II* proved, combat in single character fantasy games is extremely difficult to make interesting. In *Deathbringer*, you simply click on a monster to attack it with a weapon, and hope that your hit points last. Offensive spells, like all spells, are found as scrolls that can only be used once. Potions can also be found, and work like magic scrolls. It's the usual assortment of offensive and defensive variables affecting your character's attributes. Scrolls and potions aren't quite as

scarce as money and food, but there's no surplus of them in the game, either.

Deathbringer is entirely mouse-driven, and its interface is one more reason comparisons were made with *Dungeonmaster*. A right button mouse click brings you to the inventory screen, which portrays a large paper doll of Galdregon that can be dressed with armor and other items. There are also two pull-down windows that scroll to show what you are carrying and what is in the spot you occupy. Items are dropped and picked up by switching them from one window to the other. Another right button click brings you to a useful map of Mezron. One more click returns you to the main game screen. The graphic window on this screen is three inches tall by seven inches wide—an unusual shape, but much bigger than many efforts. A commands screen shows one of six menus at a time. This brings up the only problem in the interface. You must be sure to keep the fitness menu up when exploring. Items do not appear on the graphic display, rather, two squares illuminate *on the fitness menu only* when an object is next to you. Clicking to the inventory screen and checking the window will then reveal a graphic and description of the item. Item graphics, which include armor, weapons, potions, and special items, surpass even the best efforts to date.

Many CRPG storylines can be reduced to the ridiculous by synthesizing, but the gist of *Deathbringer* comes down to this: Find Ten Items. Each gem is held by a monster who cannot be killed unless you possess a certain item. The item itself isn't used to kill the monster, but your spells and weapons will have little or no effect without it. Some of the clues you are given about these items are incorrect. Lying characters are expected in games like SSI's *AD&D* line, but *Deathbringer* is not complex enough to justify NPCs serving up red herrings. Other clues are scarce; for instance, I never did

find a clue about how to defeat Set, but finally found the item and beat the god by excessive bashing in the temple. At one point, you will have to kill an ally. Again, this game is not complex enough to pose morality dilemmas. Finally, as appropriate anti-climax, you return the five gems to King Rohan and the game is over. The evil Azalea (or whatever his name is) never appears!? Fantasy game ends are usually a disappointment, but not to confront the Arch-foe in some way is a violation of gamers' rights. The least King Rohan could do is rise from the despondent posture he is drawn in and show some appreciation.

This game is still selling well in Europe, ostensibly because of the difference in tastes. Over There, where graphics and action predominate. What veteran fantasy gamers Over Here will miss are the traditional D&D elements that add complexity, and, if done right, a sense of actually being in another world. It's hard to complain that a three disk game with 1,153K of code, 60 different NPCs and monsters, and 600 objects needs something more, but that is the case. *Deathbringer* nee *Galdregon's Domain* has a graphic system that could've made it the *Might and Magic* I of the 16-bit world. Instead, it becomes arguably the most shallow CRPG available for the ST.

Warning! Do not read this paragraph if you do not want answers to solving *Deathbringer*!

Light spell scrolls are not needed as long as you keep the lantern. Chests do not allow you to carry more weight, but are only for organizational purposes. Lord Thull doesn't have the holy cross, as you are told in the castle. You get it by killing the summoned demon in the Demon Master's tower. The holy cross enables you to kill the lich in the northeast room of the castle. One of the wraiths in front of the room has the key. In the temple of Set, you must kill a priest that has a ritual dagger, which enables you to kill Set on the second level. You are

also told that the snake god in Set's temple has the gem (not one of the five) needed to kill the rock monster. Actually, one of the dwarves in the Caves of Doom has the gem. One of the minotaurs in the labyrinth has a mirror you need to kill Medusa. You must kill the friendly Elf Lord in the forest just southeast of the Caves of Doom and take the cloak of night to kill the master assassin in the southeast forest. Bypass all monsters that do not offer significant treasure, or it will be difficult to finish the game. This usually means going through a dungeon several times to map and find the most efficient way of obtaining what you need. The tower ghost is an invulnerable red herring. If you must, you can kill clerics to obtain an extra healing potion, but don't kill them all, obviously, or you can't buy healing. Keys are always obtained by killing a monster in the same dungeon. Just keep bashing.

Misty Writing.....I spoke with Brett Sperry of Westwood Associates just before deadline. He said that the ST version of SSI's *Hillstar* is virtually complete. Electronic Arts had a ship date of mid-September, so it will hopefully be out by the time you read this. As with so many games these days, when it comes to graphics, the formula EGA=ST applies. The ST version has the added bonus of joystick support, something not included in the IBM version, which will hopefully smooth out combat control. It will also take advantage of extra memory.....The ST version of *Ultima V* still has some bugs in it that cause the program to crash. My guess is that we'll be lucky to see it before Christmas, considering Origin's heavy release schedule and new status as independent distributor.....*Bloodwych* from Mirrorsoft is getting a lot of early notice, but so did *Galdregon's Domain* at first. It looks like a two-player *Dungeonmaster* with split screens.....*Chaos Strikes Back*, rumor has it, is getting a major revision, and won't be available until the end of the year.

WordPerfect--Update '89

The Maintenance Update

by Milt Creighton

Finally, it's here--the long-promised update from WordPerfect Corporation. Enthusiasm abounded as I opened the package, thinking back to the first time I heard about the planned update back around March or April. Would it be version 4.2 or, even better, 5.0 like the current IBM version? Would it allow me to use the Universal Item Selector? Would it support Postscript output through an UltraScript driver? Would it have a better SLM804 driver? Could you preview files? What was there about it that would justify the additional if modest cost of the upgrade. These are just some of the questions that ran through my mind.

I hope to answer them to your satisfaction here so you can decide whether to order the upgrade (for the \$17 charge) if you are a registered owner or go out and buy the product if you are not. By the way, the July 31, 1989, upgrade had a bug in it that prevented setting the page length so the date of the release upgrade is actually 18 August 1989 regardless of what the documentation says. You can check it by accessing the "WordPerfect" command under the Atari symbol in the upper left hand corner of the menu bar.

Installation

What do you get for your money? The upgrade consists of four single-sided disks, including all the *WordPerfect* disks except for the Thesaurus and the Learn disks. You will need to copy the new files on the update over to your work disks. If you are currently using a version of *WordPerfect* older than August 1988, you must delete the SYS__WPC from your work disk and redefine your color and printer

defaults. Also, if you want to change your other defaults such as spacing, fonts and margins you'll need to trash the SYS__WPC or SYS__WPM on your work disk and redefine them. There are also some further refinements for single drive users, but there is a README file on the program disk to guide you. Otherwise, the program looks pretty much like what you are used to.

Something New

As for new features, there are a couple of very visible ones that make the program much easier to use. Yes, you can substitute the GEM (or replacement file selector dialog box, e.g. Universal Item Selector II) for the inelegant *WordPerfect* file selector box of earlier versions. To my way of thinking that makes the upgrade worthwhile right there. There is more.

WordPerfect now has a print preview option, but you have to work to use it. There is now what amounts to a printer driver on the printer disk that when installed as a printer in *WordPerfect* will print a file to disk. Once printed, you may use the "Look" command under "List Files" to view the finished product, complete with headers and footers. The preview isn't always perfect, however. There sometimes appears to be a problem with stray characters floating over to the left margin if you have the line margins improperly set for your 80-column monitor. Monitor screens have difficulty displaying proportional text, after all.

WordPerfect has a faster scrolling speed now as one of a number of other internal improvements that aren't visible from the menus. The speed is quite good compared to

other GEM-based programs, but still not up to the level of speed demons like *ST Writer* or *Tempus*. If you are lucky enough to have a blitter chip in your machine (as in the Megs) and have *Turbo ST 1.6* installed as a desk accessory, this version of *WordPerfect* has more than adequate scrolling speed.

Also, it is now possible to determine the amount of free disk space remaining by accessing the new "Disk Info" command under the "List Files." Spell checking speed has been improved and a running word count has been added as well. I was given to understand that the spelling dictionary itself had been upgraded but it appears to be roughly the same size as previous versions. There are also some other added features like being able to search on all three different types of hyphens, improved file handling for single drive systems and the addition of a number of new printer drivers.

The Best News!

For those of you who own Atari SLM804 Laser printers, there is even better news. WordPerfect Corporation has added a number of new laser printer drivers. In addition to the previous Diablo emulator driver (with all its limitations), there is a new Diablo non-proportional spacing driver optimized for the typewriter font, ATTP10LS (still no italics bold, however). In addition, there is support for the public domain *Laiserbrain Epson emulator from Germany and, for a lucky few, four preliminary proportional spaced UltraScript drivers*, two portrait and two landscape! Suddenly, you may not have enough slots for all the drivers available!

As for capability and practicality, the non-proportional spaced Laserbrain driver is fully functional using its elite font. Atari Laser printer owners can now have all the options *WordPerfect* has long granted dot-matrix owners, including italics, bold, and even bold italics. The subscript and superscript commands not only work properly but utilize a smaller font. To make the emulator work properly the top margin of the page will have to be adjusted a bit and I noticed that the underlining command has a tendency to start one space before it should, but otherwise it works perfectly.

The print quality of the *UltraScript* drivers is wonderful and the fact that a proper proportional spacing driver is now available almost makes up for the difficulty of using it. (It has to be printed to disk

just like the "Preview" function and then separately printed with *UltraScript*). Unfortunately, there is currently no italics capability in any of the *UltraScript* drivers. Underlining and both subscript and superscript do work properly. In addition, according to customer support, *WordPerfect* will post new/improved *UltraScript* drivers on national bulletin boards such as GENIE as they become available. Maybe in time we'll even get background printing with *UltraScript* as well as all the styling options. A lot of that will depend on how well Atarians support this update.

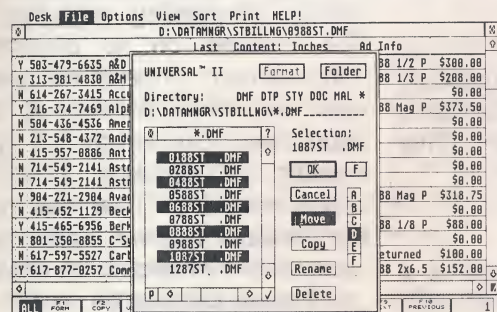
The Bottom Line: Should you pay the \$17 for the upgrade if you already have *WordPerfect*? The answer is obviously yes. It is worth more than that for the increased scrolling performance and access to the standard GEM (or replace-

ment) file selector box alone. Should you buy *WordPerfect* (including the update) if you don't already own it. Again, the answer is yes. *WordPerfect* is far and away the best word processor for the Atari ST on either side of the Atlantic, *PROTEXT* and new versions of *FIRST WORD PLUS* notwithstanding. No other word processor offers a formatted file portability between different makes of computers. Don't forget that you can load an Atari *WordPerfect* file into an IBM without having to strip the formatting codes. That means you can have an Atari at home and a IBM-compatible laptop on the road and port the *WordPerfect* files between them without any difficulty. The present update might not be version 5.0 or even version 4.2, but it sure beats anything else in sight.

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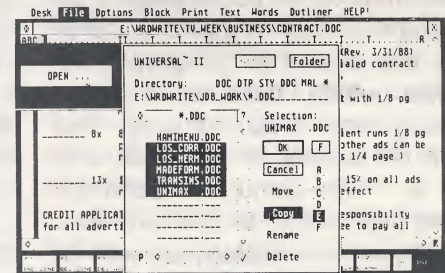
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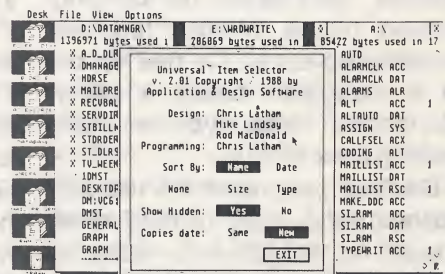
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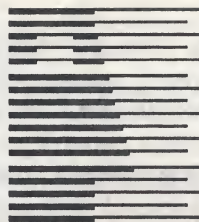
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STARTING BLOCK

by Richard Gunter



Michtron's Turbo Kit

Michtron has integrated and repackaged three of their products as the **Hard Drive Turbo Kit**. This product consists of *M-Cache* (a cache program) and *Toolkit*, which is a combination of *Tuneup!* (a defragger) and *Backup!* (a backup/restore utility).

While this wasn't intended to be a software review column, we have discussed hard drives and their management quite a bit in recent months. So it's appropriate to examine the new offering from Michtron. Let's start by reminding ourselves what the above functions are.

Hard drive cache programs attempt to improve hard drive performance by saving copies of data sectors in memory. If an application references the same data multiple times, retrieval is accomplished by reading the copy in memory, rather than the disk. The program must decide which data to save in memory, and which to purge first when the buffers fill up. Most also use a "write-through" technique where data written to the hard drive are written immediately, as well as being saved in memory. This is done to prevent loss of data should the system crash.

Defraggers are used to reorganize a hard drive by bringing scattered pieces of files together and gathering up all the free space into a contiguous block. A pretty vital function after you've been operating for a while.

Backup programs are used to make a backup copy of hard drive contents for the obvious reasons. See this column in CN March and April '89 issues for more detail.

M-Cache has a companion program which is used to set up its options. *MCCONFIG.TOS* allows you to specify which hard drive partitions

are to be cached, then asks how much space to allocate for each data buffer—specified in sectors. Michtron suggests 200 sectors. These specifications are saved in the *M-Cache* program file (there's no separate setup file).

Copy the revised *M-CACHE.PRG* file to your *AUTO* folder. It will run automatically at system boot time. To get rid of it, you must reboot.

Nothing further is required to use it. Just boot your system and go about your business. Your applications programs will run normally, except that you should see some improvements when the application is going after the same data more than once, and your hard drive's busy light won't come on quite as often. I've noticed the effect most when I'm using Antic's *Phasar*, since I search the transaction register a lot. After the first search, everything happens in memory, making the whole operation a bit smoother and more responsive.

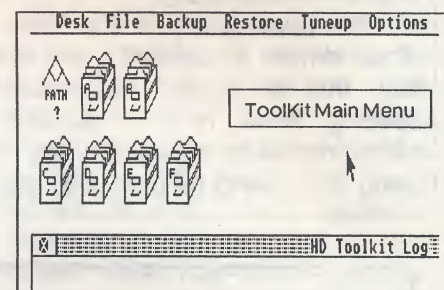
M-Cache seems to work as advertised, delivers a perceptible improvement in overall performance and stays out of the way. What more could one ask?

Toolkit

The rest of the package is a program named *TOOLKIT.PRG*. It is a GEM application, with the familiar menu bar, a log window that records what happens during a session, and several icons at the top of the screen. These include the drives the ST knows about, and an odd-looking icon named "Path." (More about that one later).

A single click on a hard drive icon selects it, and most program options are grayed out (inactive) until a drive is selected.

Tuneup Options are found in the *Tuneup* dropdown menu. Its features are pretty much the same as *Tuneup Version 1.25*, which I've been using for several months. There is a new option, "Describe disk," which yields some statistics about the partition currently selected, including sector and cluster size, etc.



The program has two optimize options, one for reading and the other for writing. The former puts all the free space at the back end of the partition, while the latter arranges it at the beginning. The idea is that if a partition is used mostly for reading, with few new files created on it, performance enhancement should be greatest with the files stored at lower addresses. Conversely, if you're creating or updating a lot, free space should be near the front of the partition. This will make the ST's rather slow FAT search go faster.

Double clicking on a drive icon produces a graphic image of disk utilization, which shows free space in white and portions in use in black. I've grown fond of this feature of *Tuneup*, since it provides an immediate indication of how broken up the free space on the drive has become.

The display has a little bug in the *Toolkit* version. Doing most anything will cause black marks to appear in the lower right corner,

appearing to indicate sectors in use but somehow orphaned. They aren't real—exit the program and re-enter—poof, they're gone.

Otherwise, the *Tuneup* portion of *Toolkit* works like the stand-alone version. I'm not happy about the bug; it suggests sloppy testing, which makes me uncomfortable.

Backup and Restore

Toolkit supports all of the backup methods mentioned in the March column. You can do two types of file-oriented backups: in DOS (i.e., TOS) format and in TAR format. Think of TAR as a proprietary format—you can't do anything with it from the desktop. The third type of backup is a compressed image of the whole partition—a sort of sector dump—but the program is smart enough not to write a lot of empty



sectors to the floppy.

The two file-oriented methods support full backup (everything), and either of two methods of incremental backup. The "incremental" backup option uses the directory archive bit to determine whether a file has been altered and needs to be backed up again; "backup by date" uses the date. The latter checks a history file for the latest backup date.

Both file-oriented methods make a history file on the partition being backed up, and update this file on incremental backups. The history file is destroyed and recreated on the next full backup.

The "path" icon allows you to specify a folder to be copied or backed up with TAR or TOS options.

The copy option on the "File" drop-down menu lets you copy the folder from one partition to another. Oddly, I had trouble getting the copy function to work properly with the Atari file selector, but had no trouble when using the Universal Item Selector.

The restore menu is the simplest of the lot; select the format of your backup disks (TOS, TAR, or IMAGE), and off it goes. There's no provision for a partial restore.

Bells and Whistles

Toolkit has lots of bells and whistles: display drive free space, list/print the directory, print the activity log, display a text file, display/print the backup history, and more.

You can have the *Toolkit* verify writes, have TOS do it, or neither. Having *Toolkit* do the verify slows things down considerably, but it does give one a more comfortable feeling about the disks' readability. *Toolkit* will format floppies for you, and supports several different floppy disk formats.

Its floppy disk formatter is nearly the slowest I've seen, and by far the most finicky; if it finds anything wrong, it yells at you. I almost flipped out when my floppy drive starting going bad on me; *Toolkit* was first to detect the developing problem by screaming that nearly all my floppy disks were bad. To make matters worse, I'd just started using a new batch of generic floppies. For a while there, I didn't know what to blame; turned out to be my hardware.

The *Toolkit* formatter is still picky, though; occasionally it rejects a floppy that other programs seem happy with. For that reason, I'd recommend using *Toolkit* to preformat all floppies that you plan to use with it.

Backup speed is respectable, at least for TAR and image dumps. For the accompanying table, I chose a small partition and ran backups with several combinations of options. Turtle's times are supplied for comparison. *Toolkit* did well in most cases. I don't know why the TOS



format times were so high, but I ran it twice with essentially the same results.

Pluses and Minuses

I liked a number of things about the *Turbo Kit*. *M-Cache* is worth having, and *Tuneup* is a good defragger. It's also convenient to have both defragging and backup in the same program; my usual pattern is to back up the drive, then reorganize it.

Toolkit lets you change format option at each disk swap, which is nice, especially if you don't have a stack of preformatted floppies lying around and need to format another.

It supports all the backup methods one is likely to want, and will split large files that won't fit on one floppy.

Bulk copying with the "path" option is very fast—much faster than copying files. However, you'll have to reboot after using it.

I didn't like a few things about this product. Regrettably, some of the deficiencies were in areas I consider important.

TAR and image dump recovery (restoring files from floppy to the hard drive) is an all or nothing proposition. You can't restore individual files or folders. In the case of the image dump, that's understandable, but not for the TAR format. You can restore individual files from the TOS format backups by mouse dragging, but **not** those large, split files. Split files can only be restored by *Toolkit*, which provides nothing but a full recovery.

TAR format disks can't be pro-

Backup Speed Comparison

Verify	On	Off
TOS format	11:36	13:00
TAR format	7:12	4:14
Image dump	7:20	4:20
Turtle	7:30	4:26

(Times in minutes and seconds)

cessed at all from the desktop. This wouldn't be a problem, except that the *Toolkit* won't list file names or even read the disk label (which it wrote in the first place)! Unfortunately, backups are faster with it than with TOS format. Better use hand printed labels to keep disks in order, too; it's not a good idea to restore disks out of sequence, and there's no way to check them with the program.

There's insufficient error recovery. If a disk error occurs in the middle of a floppy, the entire backup operation will abort. There's no way to restart at that point with a

fresh disk. Previously written floppies may be fine, but there's no way to pick up in the middle of a full backup.

I deliberately popped a floppy out of the drive while making an image dump, and reinserted it before an error alert could appear. No error was reported on the dump operation, nor on the restore, but files were damaged. This is ungood.

The Documentation is disappointing. Sections on *M-Cache* and *Tuneup* are ok, but these didn't need much documentation anyway. Matter of fact, the *Tuneup* section is somewhat better than my original *Tuneup* manual.

Toolkit's documentation leaves much to be desired. Program options are not adequately explained, cryptic error codes that appear in the message log are not defined, and the manual is riddled with typographical errors that should have been caught by proofreading.

The manual refers to a Help menu. There ain't no such thing, but the HELP key displays a dialogue box that wasn't worth including.

Conclusions

The *Toolkit* portion of *Turbo Kit* strikes me as unfinished. It still could be an excellent program if some improvements were made, however.

TAR format should be more fully supported. Error detection and recovery should be improved. Partial restores should be supported for both TAR and TOS formats. The manual should be rewritten and expanded to include missing information.

Recommendations? Well, I'm using *M-Cache* and *Tuneup* (the stand-alone version). For backups and restores, I'm afraid I'll have to stick with *Turtle*, at least for now.

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Carry-Out Hard Drive Platters

The Syquest 44 MB Removable Cartridge Hard Drive

Review by John Barnes

Hard disk drive users are a lot like chocolate freaks; they can never get enough. A new hard drive from Syquest Inc, of Fremont, CA, that features removable platters is a goody that is causing something of a stir. This product is especially interesting to Atarians because it will likely be the basis for Atari's MegaFile 44 unit (to be released *real soon now*) and it is already the base for the ToadFile 44 package that has been very successful for Toad Computer Products of Severna Park, Maryland. ICD, Inc., of Rockford, IL, is also marketing the drives and cartridges as add-ons for their FASt systems. ICD's host adapters and formatting software have represented the state of the art for Atari users for some time now and they appear to be fully supporting this unit.

The Attraction

The biggest promise that the removable cartridge offers is flexibility. The stuff that is cluttering up your hard drive does not have to sit there like a bump on a log when you want to do something else. If, for example, you use your machine for an electronic BBS, desktop publishing, and games you can reserve a cartridge for each of these uses and swap them as needed. Users of foreign operating systems like Spectre, pc ditto, OS-9, and UNIX can get the mass storage they need without having to give up room on their disk drives.

Backups are always a source of insecurity to hard drive users ("it's not *if* it fails but *when* it fails") and any new gadget that promises them peace of mind is always welcome. The removable hard drive cartridge appears to offer a relatively painless way to make backups of important work frequently.

Getting It Home

I waved my credit card in front of Toad and persuaded them to part with a drive unit and three cartridges. They nicked MasterCard for about \$970. I probably could have gotten the unit cheaper by going mail order, but the cartridges might have cost more. Besides, I wanted someone to bring the thing back to if I had problems. The operative at Toad offered to hook the thing up to a breadboard on their bench. It was just as well that they did, because a tiny part fell out. We hooked up another unit and it worked fine.

Once I got a good look at the unit it was easy to see the distinguishing features: an opening about 3/8 of an inch high runs right across the front of the case, square button right in the middle below the opening, an ejector lever, and two LEDs. With power applied to the unit you simply orient the cartridge properly and push it firmly into the slot. The ejector lever pops into its latched position once the cartridge is all of the way in. A red LED flashes as the drive spins up. When the green LED burns steadily the drive is ready. It is permissible to remove power with the cartridge in place, but you must give the mechanism at least a minute to spin down before removing the cartridge. Failure to observe these precautions carries the risk of damage to the platter, the mechanism, or both.

Getting It to Work

Without going into too much detail I can say that the process of adding the drive onto my existing system was straightforward, involving only the manufacture of a new SCSI cable, mounting the drive in

an empty slot in the case, and reconfiguring the SCSI bus address jumpers.

This took quite a bit of fiddling until I realized that ICD's new formatting software package contains a utility program named IDCHECK that goes around and checks the addresses of all devices on the SCSI bus. IDCHECK proved its worth by providing the clues that allowed me to connect my SLM804 laser printer.

For some still mysterious reason the Syquest unit did not want to work when it was given a bus address that was too close to my main Seagate ST251 hard drive. The laser printer turned out to be in position 5 rather than in position 7. ICD has a clock on the bus at position 6. Once all of this was sorted out, everything worked like a charm.

The matter of bus harmony obviously needs work on somebody's part. Devices should be able to share the bus in complete comfort. The ICD folks, because they design host adapters, have to be more aware of this than anybody, and I suspect that this is a reason that they don't sell their tape backup in kit form. They do seem to stay on top of the situation, however, and ICD host adapters users should check ICD's product support services to see what is new.

Putting It To work

Once the drive was formatted and all of the other system components were working together, it was time to put the new drive to work.

The first thing I tried was dismounting and remounting the cartridge. After pressing the little button in the middle of the drive face,

the red LED comes on while the drive is spinning down. Once the drive is spun down, pushing the eject lever to the right causes the cartridge to pop (rather forcefully) out of the drive. After reinserting the cartridge and letting the drive spin back up I accessed the directory of one of its partitions. A <Disk Change> message blinked a few times in the upper right hand corner of the screen, indicating that the system has spotted the media change. I would not advise this move while in the middle of an application that is using the drive, however. Some applications that bypass the normal disk i/o may do strange things to directories.

I next tried using it as a backup. The only software that I had to do this job was a copy of IBBACKUP from IB computers. This took about 25 minutes to move 500 files totaling 13 Mb from my C partition to an empty partition on the removable cartridge. This represents a transfer rate of about 80,000 bits per second, far below the rated capacity of the ST's DMA port and far below the likely capacity of the SCSI interfaces on the drives. The overhead of creating new directory entries and folders probably accounts for a lot of this.

There may be more efficient software somewhere, but IBBACKUP does set the archive bit (which tells whether a file has been backed up) properly and an incremental backup (selecting only those files whose archive bit has not been set) is a very quick operation. IBBACKUP also does not mess up the file dates when it makes the copies, a strong plus. On balance, it looks like the backup function will prove very useful. Problems from software that modifies a file, but fails to clear its archive bit (DESK-CART and PHASAR are two known examples) can be taken care of with the TOUCH function on the Universal Item Selector.

Archiving files (saving those that are obsolete or of limited inter-

est) should be done on floppies because it is much cheaper to do so. The 60 or so floppies that it takes to back up 44 megs of data cost about \$40 vs 100+ for the removable cartridge.

Using UNIX, in the form of the MT C-Shell, should not be a problem because this package uses the normal device handler for disk drives. This experiment is next on my list.

OS-9 may be another problem. The only hard disk handlers that I have are for the Supra drive and the Atari drive. The ICD folks report that they have not yet gotten Microware Systems (the OS-9 folks) to cooperate on evaluating potential problems with OS-9 support of the ICD host adapter and formatting software. This project will have to wait awhile.

Gadgets by Small is supposedly evaluating a Toadfile unit to see if it will work with Spectre GCR. This one is a wait and see situation, but if it can be made to work it will allow the user to use separate cartridges for Spectre and for GEM. The Macintosh world already uses the Syquest Unit and it will be interesting to see if cartridges can be moved back and forth between a Spectre system and a Mac.

In summary, the removable cartridge seems to work and work well in the limited use I have made to date. I look forward to putting my clip art collection where it is easy to get at as well as to keeping my important correspondence and data files properly backed up.

A Snake in the Grass?

Since the removable cartridges are not sealed they must be more vulnerable to dust in the air, humidity, mechanical abuse, and other gremlins. Time will tell just how big a problem this is. In the meantime, take reasonable care and always keep the cartridge in its plastic shipping case when it is not in the drive. I have been using large DEC

removable packs that are more than 10 years old with only a few real problems.

The cost of the system is high. It begins to compete with fixed drives only when the total capacity gets up into the 100+ megabyte range. The thing is novel enough so that the price is likely to stay high while the price of fixed drives continues its steady decline. If I were to start from scratch in configuring a hard drive system I would use a 50 or 80 meg drive with an embedded SCSI controller and a removable drive as the backup.

Value added retailers might like these units because they can configure and maintain their customers' software environment easily.

Obviously, we are just at the beginning of exploring this thing and Current Notes will keep you posted as we search for better software and operating procedures.

Keep Up the Good Work

Tiny outfits like Toad Computers deserve our encouragement when, as in this case, they bring together the right parts, make a unit work, price it attractively, and bring it to market quickly. A medium-sized outfit like ICD earns itself a solid niche in the marketplace when it develops a good product like a host adapter and keeps it up to snuff in supporting the latest new applications.

Only a small minority of Atari users will need these products and this need can easily be serviced by the little guys. Corporate giants who timidly test the waters, review the bottom line, and ask themselves "will it sell?" will always have trouble keeping up in this arena. The giants should learn that the pond needs both big and small fish and they should devote themselves to providing the innovations that cut across the entire breadth of the market and help define it for everyone. Collaboration instead of competition should be encouraged.

Hard Disk Myths and Mysteries

Part 1

by David C. Troy (c) 1989

In between building hard disk drives and collecting the latest Lego toys from the McDonald's Happy Meals, I've found some time to write about hard disks. Being in the business of selling hard disks, I feel I have a pretty good idea of what the average user does and does not know about hard drives. People ask me questions about them all day long. The chorus and refrain of my life nowadays is, "Yes, it has a fan." So, in that light, let's get on with this.

We need to first recognize that there are several fundamental topics when it comes to hard drives, ranging from the very general to the very specific. We will cover all of these topics in this series, beginning with the most general ones.

Everybody who knows what a hard disk is, raise your hand. Good. That's almost everybody. How many of you own hard disks? About half. Great. How many of you want hard disks? Don't be shy, raise your hand. Ok, that's the other half.

The first thing we need to determine is what exactly a hard disk is and if you need one. A hard disk is an expensive piece of hardware, and there's no reason to buy one unless you're relatively certain that you need one. Let's first see how one works.

Hard Disks vs Floppies

A hard disk works just like a floppy disk, in that data is stored and read by an electromagnetic read-write head on an oxide coated disk surface. Unlike a floppy disk though, the actual disk is made of metal (about 1/16" thick.) A floppy disk is made of a light, flexible plastic. Hence the names floppy and hard.

Another difference is that typically, floppy disks have one or two

read-write heads (single and double sided drives.) Hard disks can have many more than that because they frequently have more actual disks inside. Your average hard disk has two or three disks spinning inside and has four to six heads.

Hard disks spin continuously. Floppy disks only spin when you want to access them. This fact gives hard disks their outstanding speed. You never have to wait for a hard disk to start spinning, so the head can zip to exactly the right place on the disk without any wait time. (Incidentally, the amount of time this takes is referred to as access time, and ranges between about 6 and 85 milliseconds.)

Hard disks have tracks, just like floppy disks, but because you usually have more than one disk, and because they are arranged one-on-top-of-the-other, hard disk tracks are referred to as cylinders, and talking about a specific cylinder refers to the same track on all of the disks.

Advantages of Hard Disks

OK, now you know how one works. What does this mean to you? Well, a hard disk does offer a lot of freedom. Having several megabytes of contiguous and fast disk storage does make a lot of things easier. Do you have programs where you have to switch disks a lot? Do you find disk access painfully slow? Do you hate having to load your desk accessories and AUTO folder programs from the same floppy all the time? If the answer to any of these questions is yes, then a hard disk is something you should consider.

Hard Disks and GEM

On the ST, the GEM operating system makes hard disk use rather easy and fun. The ability to have

folders is what makes a hard disk work so smoothly on the ST. You can copy all of the files from your favorite programs into folders, each one bearing the name of that program. You then can access all those programs, with no disk switching, at amazingly high speeds.

You can even put folders inside of folders. For instance, you could have a folder called GRAPHICS, and inside that folder have all of your drawing programs. Or a folder called CLIPART, and have all of your desktop publishing clip art in it.

An AUTO folder on a hard disk means a lot—especially with a program like *Superboot* that manages all of your autoboot files and desk accessories. In this kind of environment, you can control what desk accessories and auto programs are loaded each time you turn on your machine, and you can keep all of the ones you use right there on the hard disk. No more having to remember which disks have what autoboot programs.

There is a bug in TOS that makes accessing any more than 40 folders per session risky at best. It sets aside certain directory buffers, and it doesn't allow any more than 40. Hard disk use more frequently than not exceeds that 40 folder limit, and you need to have a program (FOLDRXXX.PRG from Atari—CN library #221) in your AUTO folder that sets aside more directory buffers, thus eliminating this problem.

Hard Disk Partitions

Besides the folder system, hard disks can be divided up into several small "drives" called partitions. I say "drives" because the ST treats these partitions as if they were separate drives. On the ST, you can have up to 12 partitions, each one having a maximum size of 16.77

megabytes. (This will change as soon as TOS 1.4 is released. Then, the maximum size of each partition will be 32 megabytes, or even higher—a firm answer is not available on this yet.) The gist of this is that currently, you're limited to about 201 megabytes. But for most people, that's not really a limit, it's more of an unreachable ceiling.

This partitioning system can be used in many different ways. You could use it to organize your programs, similar to the way folders are used. You could put all your games on one partition, all your autoboot software and desk accessories on another, and all of your many accounting packages on another.

You also use partitions when working with the popular IBM and Mac emulators. For instance, with the Spectre or Magic Sac, you can set aside a portion of your hard disk specifically for use with that emulator. Then, your machine will behave just like a Mac with a hard disk attached. GEM will not interfere with this partition, and the emulator will not touch the Mac partitions.

You can also set up an IBM partition, which will allow you to place IBM programs on your hard drive. Because of the compatibility of the ST and IBM disk formats, you can even keep ST and IBM files on the same partition—this would allow you to load *pc ditto* from the same partition that you then boot PC-DOS from. This is really convenient.

Removable Hard Drives

Another aspect of hard drives is removable media hard drives. Three companies currently have removable media products: Toad Computers, Carter Graphics, and Supra. The first two have 44 megabyte removable hard disks, basically identical to the *gee-I-think-we-should-release-it-only-in-Europe* Megafile 44 from Atari.

These are really handy because you can have basically unlimited capacity from your hard drive, and even dedicate whole cartridges to Macintosh or *pc ditto*, for less than

\$1,000. Supra sells a drive, the FD10, which is a 10 megabyte drive that uses very high density floppy disks. The disks for that cost less than the 44 megabyte cartridges, but the drive is about the same price.

CD-ROM Drives

Atari should be shipping its CD ROM (Compact Disc-Read Only Memory) player real soon now (RSN—all Atari dealers know this acronym all too well.) CD-ROMs are a little slower than hard disks, and as their name implies, you can't write to them. All sorts of swell reference materials, although mostly for business, are available for IBM PCs on CD-ROM right now.

Prices

Now you have a better idea of what a hard drive can do for you. But what's available and how much should you pay? A lot of vendors sell hard drives, ranging in price

from \$500 for about 20 megabytes to close to \$2,000 for drives with special features. Because of the 200 megabyte limit of the ST, it is unusual to find a drive priced over about \$1,500 based on capacity alone. Usually, these drives have special features like extremely fast speed or rack-mounting. The best hard drive values lie in the \$700–\$900 range, offering as much as 85 MB for under \$750, or 100 MB for around \$900. The removable media drives sell for \$900–\$1,000.

I think this gives you enough information to start considering hard drives in general, and maybe enough to know what to buy, or at least to begin your research. Talk to friends, family, and computer geeks with your new-found knowledge. They can give you some more advice. We'll be back next month covering other exciting topics, like drive size and its relationship with satisfying computing, drive speed, and even *fans!*

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The Junkyard Pussycat



by
John
Barnes

The Online Confectionery

What BBS's Do to Me

How would you like to be able to get help from real experts with a few strokes on your keyboard? How would you like a forum for voicing your complaints? How about software free for the taking? Modern electronic information services promise all this and more. This ought to be a real paradise for computer junkies, right?

For the cost of a modem, a software package, an information service subscription, and a few hours learning to navigate you can, indeed, savor some of these delights. Join the Junkyard Pussycat as he prowls the online candy stores in search of a chocolate fix.

Let me focus on the two services that I am most familiar with: GENie, General Electric Corp's national service, and ARMUDIC, the local multi-line BBS supported by NOVATARI. CompuServe is another national service that offers strong Atari support, while there are hundreds, if not thousands, of electronic BBS's spread across the nation. Your local dealer should be able to direct you to one. Be warned, however, that my emphasis today is on outcome rather than technique or tutorial.

Getting Started

The lore of modems, terminal programs, starting up accounts, etc. is best gotten from one of the experts in your local user group. CompuServe's introductory kit can be obtained in most stores that carry computer books. The odds are that your local dealer runs a BBS and it's virtually certain that they can guide you to one of the local SYSOPs, as the masochists who run local electronic information services, call themselves.

One word of caution before you try to get started. Always pick up your telephone and listen to the modem dial the number and wait for the connect signal when

using autodial to ring up a new BBS or when trying out new hardware or software. I never will forget the poor devil whose phone number was one digit different from that of a local BBS. He did not enjoy waking up to mystery phone calls at 1:00 in the morning.

Signing On

Signing on to one of the information services is a lot like playing a rather unimaginative text adventure game. Instead of "pick up sword" you will be asked to work your way through the dungeons with "a 1 and a 3 and a 2..." Of course, the information service is already into you for a number of pennies before you ever get to the good stuff. There are navigational shortcuts and any decent telecommunications program lets programmers write "script files" to deal with the repetitive stuff, like entering your account name and password. Non-programmers should get a friend to help with this because it makes life a lot simpler.

All information services offer generic products like news bulletins, message areas, software libraries, and chat rooms. Computer junkies can gorge themselves on this stuff until the next MasterCard bill shows that they have been on line for seven hours and owe a bundle. User-supported services like ARMUDIC don't nick you like this, but they also offer a thinner gruel than the biggies do because of their smaller audience and their limited capacity for file storage.

Looking for Mr. Goodbar

The best service the BBS's offer is access to useful software in the form of utility programs, games, art work, sound files, or DTP fonts. These items are found in the "software libraries." Much of it is "public domain," free for the taking and using. Other material is "shareware," where the author rattles a tin cup in front of the user.

GENie's library includes around 12,000 entries at my last count. As in any large discount candy store, it is a problem to find the item you want. In my experience it is best to look on the local BBS's first. Their confirmed denizens delight in astonishing others of their ilk with their speed in bringing home the latest and tastiest morsels, so you can often save the cost of a paid download. For more esoteric material you will have to shop the aisles on a national service.

All services suffer from poor cataloging and indexing, which makes finding the right title a lot like picking through the post Halloween candy bargains in your local drug store. *Current Notes* has the complete GENie catalog on disks (CN #328D or #329D). This may be cheaper than downloading it, and it is certainly cheaper and more reliable to pick through it offline using a program editor.

Compressed Files

Downloading is time-consuming. The effective rate of data transmission for a 1200 baud modem can be as low as 60 characters per second depending on the transfer protocol and you never get the maximum rate because all protocols have some overhead associated with them. At this rate it can take an hour or so to download a few small files. Because of this, and to save space on their disk drives, the online services compress their files into smaller packages called ARC files. This also allows the transmission of several related files in one package. The stuff does have to be uncompressed and this requires a special software utility. A good quality disk from one of the "public domain" disk sources will usually avoid all of this and give you a product that is more or less ready to use.

There are some software packages that allow you to use your computer for other things while you are downloading, but multitasking is not well enough developed in the Atari world to guarantee that this is truly useful. BBS use might be a good reason to dust off your old 8-bit machines if it weren't for their very limited disk and memory capacities.

Quality control, bad enough in commercial software, is non-existent in the public domain and shareware worlds. The stuff usually works, but the authors' ideas on this will undoubtedly be different from yours.

Send a Candygram

Electronic Mail, or E-Mail in the BBS jargon, is a very promising idea. Send someone a message and they can read it and reply to you at their convenience. I have been frustrated with E-Mail about as often as I have been satisfied. This has to do first of all with the "reply" part. Certain correspondents habitually find it inconvenient to reply. It is easier to ignore an E-Mail letter than one sent via the Postal Service's SnailMail. After all, E-mail gets buried away in a capture buffer and there are more exciting things to do than to dig it out and respond to it. Paper letters have a way of floating to the top of piles on one's desk and reminding the recipient that a reply really is overdue.

The technology that BBS's apply to their mail systems is also a scandal. The online editing facilities are a disaster because they are designed for use with antique teletype machines. The most sensible (and economical) thing to do is to compose the letter offline and upload it. Use your favorite word processor with its spelling checker, print the thing to disk, and upload it, after logging on to the BBS. Provided, of course, that the thing doesn't crash while you are trying, provided that you know the address of the recipient (GEnie has a search system for finding addresses that can be useful if you are desperate), and provided that your upload software is smart enough to control the flow of data to

the BBS properly. If the BBS doesn't crash, your phone company might mangle your signal, which can give the same effect.

Typing away at the keyboard, whether online or offline, is a poor way to communicate compared to a telephone. A letter that takes an hour or more to type can be discussed in a conversation of a few minutes duration with instant feedback on misunderstandings. A telephone call is worth a dozen letters if you have serious business to discuss.

On balance E-Mail can be useful if both correspondents are conscientious, competent communicators and if hard copy is essential. The learning curve for making proper use of these facilities is pretty steep.

The Neighborhood Kaffee Klatch

Most BBS services, like local supermarkets, allow for the posting of short notices. The user browses through the material that has been posted on a particular topic and is given the opportunity to add something to the stream (although the technology for entering text is usually even more primitive than for E-Mail because most message base systems do not allow for xmodem uploading of message texts). If the discussion is focused, this can be a worthwhile form of communication because it lets many people see what is happening and share their experiences. The readers get chances to ask questions and pose solutions to problems.

Problems arise when the discussion becomes unfocused. The interested reader often has to wade through too much irrelevant or inflammatory material in order to extract the meat of an issue. There is also a small population of users who wander off the subject or who use these message threads for their private purposes. This is more of a problem on local BBS's because the users feel less restraint there and there is less structure to the message bases to begin with.

I have not tried to do any systematic statistics on these matters, but the repeated occurrence of the same names leads me to believe that the electronic village of the message bases on GEnie's ST Roundtable is inhabited by perhaps 200 to 300 people. The activity reminds me of the gatherings you can get into at a neighborhood ice cream parlor or local bar.

I am slowly learning, however, that what appears to be wit or sarcasm on the part of some may simply be a lack of knowledge about a particular topic. Realizing that I may occasionally sound the same way helps give me the tolerance needed to keep from blowing my stack now and then. As you detect, you can become quite involved in the conversations.

One of my favorite bugaboos is the little <grin> that some people write into messages. I am never quite sure whether they are smiling for joy, or from satisfaction after thrusting a knife into your heart.

Get the Latest Scoop

Many purveyors of goods to the Atari market advertise that product support is available on GEnie or CompuServe. These services usually make heavy use of the message base approach with a much smaller emphasis on file libraries. I have been appalled at the lack of professionalism in these efforts on the part, first of all, of the users and secondly on the part of the companies.

Users who are dissatisfied with a product or who are ignorant as to its functioning (often through no fault of their own) think nothing of harping on the same subject for page after page. The people who couch the replies are so busy thinking up cute comebacks that they miss the question entirely. Once again, a phone call is worth a dozen letters, particularly when the online respondent has no official connection with the company. Tracking these message threads is not cheap. It is easy to spend an hour or more wading through a controversial subject (a 2400 baud modem helps here, but you still have to read the stuff).

Companies should use the file areas in their product support roundtables to distribute sound, sensible, correct information on the status of their existing products and the availability of updates and bug fixes. The contents of the message threads should be edited into coherent status reports so that a newcomer can get some real information instead of opinions and cute replies. This would, unfortunately, require work, and most companies don't have time for that, preoccupied as they are with spin control or bug fixing. It is really amusing to watch the message threads fill up with strident requests for data that developers don't want to release before its time.

Chat Rooms and Online Conferences

On local BBS's that support multiple lines it is possible to chat back and forth in real time with a subset of the other users who are online at the same time. These informal conferences can be a very useful means of working out problems but they suffer from one serious shortcoming: the incoming reply can often mangle the line you were typing your next question on. The characters don't get lost, it's just hard to pick up the thread. This might not be too bad with fewer than 4 people in conference, but it gets pretty bizarre with 90 or 100, as sometimes happens on GEnie's conferences.

In such cases the conversation is controlled by a moderator and the members of the audience must <RAI>se their hands as if they were signaling to the teacher. The moderator then lets them know when their turn will be coming up and they have to type their question or statement before the moderator decides to move on to the next customer. The quality of the replies from the responders in such cases usually leaves a lot to be desired because the question may be poorly

phrased and they didn't really have time to consider their answers.

These online conferences, or love feasts, are a cross between an unruly White House Press conference and an electronic Woodstock. The best way to learn the ropes is to sit back and let the old hands, who are always present, ask a bunch of questions. Then adopt the style that seems to give the best flow of communication.

When the conference gets too boring, you can always see which of your friends are present and exchange private telegrams with them.

The people who ask the questions do render a service for all of us, but you can get a first run movie or four video rentals for the same amount of money.

If you watch the swoonings that follow the departure of the featured guest you will understand why I refer to these as "love feasts." They are heady stuff for truly addicted Atarians. I am trying to learn to stay away and read the transcripts after they are posted.

An hour's worth of typing with time out for thinking conveys precious little information. It would be nice to find a better format.

SYSOPS - A Dedicated Band

The people who handle the interface between the user and the online information services are called "SYSOPs" and it would be hard to find a more dedicated band of people. SCOTT, ED SEWARD, DARLAH and JEFF.W have been very nice to me and the services they have rendered to the community have been Olympian. They are a special breed because of the way they mix professionalism with caring.

All of the complaints I have set forth in the preceding have been largely with regard to matters beyond their control. The machinery and software that they have to live with has been constructed by someone else.

I hope that my SYSOP acquaintances can appreciate the distinction between criticism of their systems and criticism of themselves.

The Future

In summary: while online information services offer great potential, they have yet to fully realize it. This is equally true of services like Internet, Bitnet, Usenet, and others that professionals use.

Computer technology on mainframes and micros alike is capable of doing much better. The user interface to the Mail system on a VAX, for example, is vastly better because it makes effective use of modern terminals. Newer operating systems support multiple sessions on single terminals. This approach falls apart when one must allow for obsolete terminals and it falls apart even worse when different computers must be hooked together, as on Internet.

Microcomputer operating systems do not yet perform effective multitasking, which is essential to writing terminal programs that allow the user to type in one window while the capture screen scrolls by in another. Perhaps there is something out there, but my queries have not yielded anything.

Customers also bear responsibility for the quality of the products received because they do not press for anything better and they fail to make effective use of the resources available even if these are archaic.

Count Your Calories

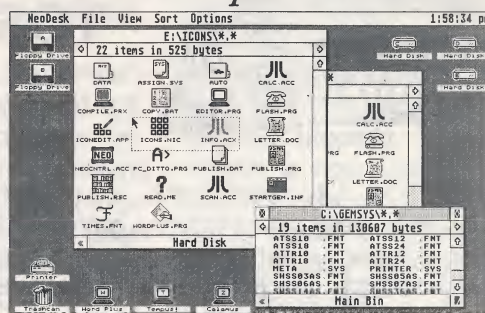
There are horror stories about \$300 monthly bills for online services. I suspect that there are more than a few frustrated spouses wondering what their mates see in the "boob tube." I know of a number of households where teenagers are forbidden to purchase modems.

These cases are somewhat extreme, but it does take a certain amount of discipline to keep from getting sucked in. One key is not to expect too much. Another is to be selective. Aimless browsing eats up connect time. Download the things you really need, read messages on topics that are genuinely important to you.

Like hot fudge sundaes, the stuff from electronic BBS's is fine when taken in moderation.

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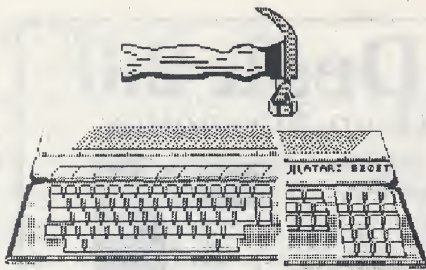
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ST Toolbox -- J. Andrzej Wrotniak

TOS 1.4 and Some Other Things

The new TOS 1.4 materialized itself finally; last week my friendly Atari dealer installed a set of new ROMs in my 1040ST, which set me back \$90 for the chips plus \$15 for installation.

Compatibility Issues

Some of my friends have used the preliminary, disk-based, version of TOS 1.4 for a time and I have heard complaints about its compatibility with some of the popular programs (including *Degas Elite* and many PD offerings). Looks like the ROM-based version is much cleaner: *Degas Elite* and many other programs I have tried, including all Prospero compilers, *Laser C*, *Word Perfect*, *Word Writer*, *Interlink*, *NeoDesk* and *Universal II* in this number, work just fine. Yes, *Dungeon Master* and *Oids* run OK, too.

The *Publisher ST* from Timeworks runs fine from the GEM desktop, but terminates immediately when executed from *NeoDesk* with *G+Plus*. All other GDOS-based programs I have work OK in this configuration, so I have no doubt that the *Publisher* is the culprit here. As much as I like and use the program, it must contain some very ugly code inside; my list of documented bugs in it includes about 40 items. Some time ago Timeworks announced they are *not* planning any updates in the near future. With all these bugs, this is not just an inconvenience, but rather an offensive lack of concern and of professional pride. From my personal experience, it is much better to deal with small software houses who really care about the quality of their wares; Mr. Johnson, Mr. Wilga or

Mr. Small (and many other programmers) would not sleep, eat or anything else until the known problems in their programs are fixed.

Coming back to TOS 1.4, the only real problem I have discovered with it was that the Ctrl-Shift-Alt key combination does not disable my Supra hard drive autoboot program (Version 3). This way, if I want to play most of the games, I have to unplug my hard drive, which is a major nuisance (games from FTL, including *Dungeon Master*, disable the hard boot on their own; why don't other software houses use this approach? I went looking for any information on the subject in the Supra support library on CompuServe, but the *only* file they have posted is the product list. They call that support? I call it sales talk.

For Developers' Eyes Only

There seems to be a veil of secrecy around these six black chips. Atari Corporation has not provided any information about the changes—at least not via any open channels. The chips themselves are not accompanied by a single sheet of documentation, and there is no information posted on the subject on GEnie or CompuServe, at least not in the publicly accessible areas.

Oh yes, they will say, we do provide the *registered developers* with the necessary information. Does that mean that all other ST programmers (or users) do not deserve to know about the new features? What would Atari Corporation lose by making the information public? Does anybody do any thinking in Sunnyvale? If I sound offended, it is because I am, on

behalf of thousands of people who do ST programming.

GEM Desktop under TOS 1.4

Among the easily visible features of the new desktop are the following:

- The improved file selector with drive select buttons. Still a far cry from *Universal II*.
- A possibility of autorunning a GEM program upon bootup (the Install Application menu entry). Again, Mr. Johnson's *HeadStart*, a public domain program, does the same.
- An optional skewed disk format, faster than normal. This is not really a new thing, either; the *Twister* from Messrs. Small and Moore and some other public domain utilities will do this.
- Full compatibility of the disk format with PC-DOS (the boot sector). Once again, many free utilities will do this, too.
- Time stamps of copied files are now handled properly: the copy has the same stamp as the original (*Universal* and *NeoDesk* do this right, too).
- Important for hard drive users: the "40-folder bug" has been fixed.

Evolution, Not A Revolution

In other words, no big deal, just an evolutionary improvement. True, from what I hear many original bugs have been fixed (one day Atari may even give us the full list). Programming for the ST should now be easier without the need to work your way around the bugs and any improvement is welcome. On the other

hand, if a programmer wants his programs to also run under older TOS versions on all those machines around, all the "old" bugs/features still have to be taken into account.

The newly released programs will have to be tested under both new and old TOS versions (let us not forget about the "Mega" TOS 1.2), but some older ones, written when the new TOS was not yet available, may not work properly under it. In some cases the programmers were not following the rules (for example, to make some game animation run faster), in some—the documented features were not working properly and some *ad hoc* solutions had to be found, which could be not quite kosher.

The major question remains: why did it take so long? The buggy versions were being sold for almost four years!

Do You Need to Spend \$105?

No doubt, it will be nice to have the new Atari STs equipped in the improved version of the operating system (when Atari's supply of older chips runs out), but if you are considering an upgrade of your ST to the new TOS, then you may choose to save your money. For \$105 you can buy *Universal II*, *NeoDesk*, *G+Plus*, *CodeHead Utilities* and a case of beer, and the noticeable improvement in your ST's performance and convenience of use will be by far greater.

Most of the existing software will run under the new TOS, but it runs fine under the old one, too. I cannot imagine any new program (at least not in the predictable future) which would require the new version to run; this would be commercial suicide for the publishers. And remember: some of the older software may not work with the new chips.

All this means that I cannot unconditionally recommend spending your \$105 for the new TOS. There are some advantages to the upgrade, but also some risks and

inconveniences, to say nothing about the cost. The decision may not be obvious.

New Wave in Copy Protection

The new trend in copy protection techniques is to make not only copies, but also original disks virtually unreadable. A few months ago, I bought the *Baal* from Psygnosis. The game looks good, plays well and does not require much thinking; just something you need coming home after a hard day.

The only problem is that it would not run on my machine: after loading the second disk it freezes with some hex dump on the screen. I have tried it on another machine, with the same result. Maybe a bad copy, I thought, and my dealer replaced the disks. Twice. The same thing happened with two more copies, with the poor disk drives screeching, whining and trying to jump out off their bearings. Out of the six machines on which I have tried to run *Baal*, it would work on two.

In the recent issue of *ST Informer*, Robert Angone complains of similar problems with some other Psygnosis/Psyclapse titles. These guys seem to have gone overboard with copy protection and the word is spreading. This may hurt Psygnosis much more than software piracy. I am not going to buy any of their games until I learn their copy protection techniques were changed for something more civilised; I hope I am not alone in this decision.

New Turbo ST--Version 1.6

As some readers may remember, I was not thrilled with the performance and price of the screen speeder-upper, *Turbo ST* from SofTrek. Still, their upgrade policy is recently very generous. Just take your original disk to the dealer and update it (unless you are trying to do it at CalCom, who were not aware of the SofTrek stand on the

matter and would not bother to check). No wonder I decided to try the new version.

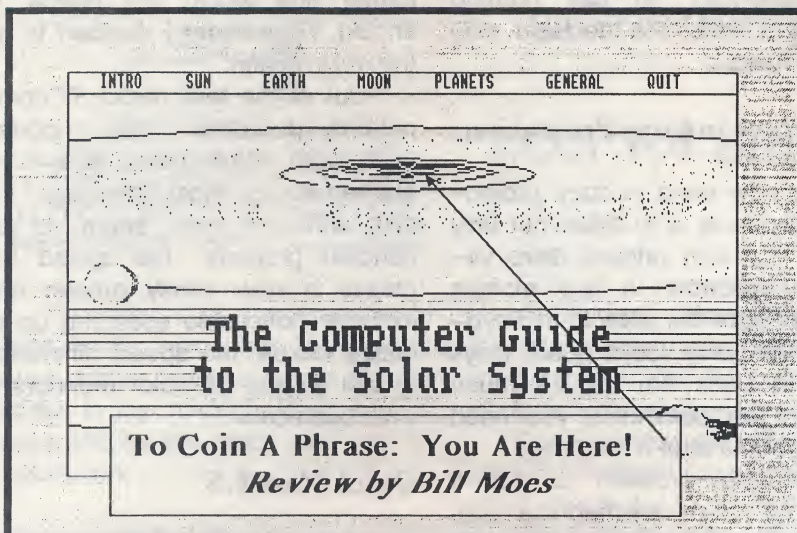
Out of the few *Turbo ST* compatibility problems I have reported (and more which I have not), none are remaining. Most important, the text attributes now seem to be handled properly. The speed increase is now visibly greater and includes noticeable speeding up of dialog boxes; the speed difference in text display on color monitors is just spectacular.

QuickStart 1.5

Turbo ST still remains overpriced, I think (expect to pay about \$40 at your store). There is a shareware program doing the same thing, called *QuickStart 1.5* and written by the restless Mr. Johnson (who else?) from the Little Green Footballs Software (a shareware division of CodeHead Software?). A \$15 shareware contribution seems to be a reasonable thing to ask for.

Without running any benchmarks, I can state that (in most cases, at least) *QuickStart* has an advantage in monochrome, while *Turbo ST* is *much* faster in color. This may, of course, depend on what the application in question is doing to the screen.

QuickStart 1.5 has some minor compatibility problems. Non-standard text alignments are not handled properly (*QuickStart* seems to always assume that the text is left-aligned), the screen in my Prospero editors gets somewhat garbled, and some pixels are left undrawn in some of editable dialog fields. With most programs, however, you will not notice anything wrong. Try *QuickStart* out with your most-used applications; if you decide to keep it, send \$15 to those green guys. From their past record, I can bet that when you are reading these words, a new version, addressing these and other issues (and speeded up even more), is already available.



The view from space ... planets revolving around the Sun ... tides on Earth rising and falling through the force of a distant Moon ... atoms in the nuclear cycle of the Sun dashing across the screen ... eclipses

The Computer Guide to the Solar System (CGSS), a recent release for the ST, provides it all. And, as you might expect, there's *more*.

Sections and Subsections

The program is divided into five main GEM title sections: Sun, Earth, Moon, Planets, and General information on the solar system. Each of these is then separated into appropriate menu subsections. The GEM menus are on-screen only when you make a selection. They're not visible during the actual presentations.

About 40% of the topics include some animation. Clearly, the animation is most valuable and appropriate. Watch the planets revolve around the sun, inner planets more rapidly than those more distant, and toggle a calendar showing just how long those revolutions would actually take.

The planets in this animation are shown as small dots on the screen, but that seems sufficient. In addition to toggling a calendar for some animations, other keys will make animations go more quickly or more slowly, offer a delay to label some screen items, or return to the main menu.

I thought the animation in the Moon section was most effective. The Moon's actual orbital motion, the phases, eclipses, and tides were all shown. The exaggeration necessary for viewing was mentioned and the concepts were clearly explained.

Voyageur You

When using the software, there's no need to go in any order; follow your interests. Select. Then, read, watch, and enjoy. Units of measurement may be set to

U.S. standard or to metric, your choice.

Prompts for continuing to the next screen, or for returning to the main menu, are clear and simple. The left mouse button has its usual use; the right button is often used to return to the main menu.

Each screen usually contains both text and illustration. The medium resolution screens are not particularly colorful, although I found that turning up the monitor's contrast helped brighten things. A color monitor is required.

The text and concepts in *CGSS* seem set for students in about 6th grade through high school, although adults should find the presentation interesting. Younger children may not be able to understand some of the ideas presented.

Charon Rocks!

The software seems up-to-date, and this is certainly necessary in any science software. The publisher states that the software will be updated as new information becomes known.

The possibility that Pluto could be considered a double planet was noted, and animation showing the "cosmic dance" of Pluto and Charon was shown.

It seems clear that the authors of *CGSS* are enthusiasts in this area of science. The effect of this is a kind of contagious enthusiasm.

It's the "E" Word

Yes, *CGSS* is, indeed, "educational" software, but don't let that term mean dull and boring! *CGSS* is well-organized and carefully written. The animation shows how learning software should be presented; the ST is used to good advantage.

Abstract ideas are presented clearly. The use of graphics and animation to reinforce and supplement the text is well-done. At the end of particularly challenging sections, a review of that section is offered.

Load 'N Fold

Each section loads quickly. With the 1 Meg ST version (reviewed), you may find some sections already in memory. A separate version of *CGSS* is available for the 520 ST, although it will require additional disk access. I was not able to have desk accessories loaded when using *CGSS* on a 1 Meg ST.

After loading, the graphics and text are quickly displayed. As you finish reading or looking at each screen, there is usually a "Continue" box to click for the next screen; it's not possible to just press <Return>.

The software, not copy-protected, is on two single-sided disks. The publisher used extended formatting on the disks. You'll need an extended formatting utility to make your back-ups, unless you're going to copy the files from the single sided disks to double-sided disks or a hard disk.

The documentation is a 32-page booklet that does little more than explain how to copy the disks and use the program. Disappointing.

Summary

The Computer Guide to the Solar System (\$54.95) is quality learning software, offering an interesting introduction to very important areas of knowledge. The use of animation is effective.

The software is certainly worth having in classrooms. Parents interested in encouraging children to study the solar system should also find it quite helpful.

[WinterTech, 111 Granada Court, Orlando, FL 32803 (407) 425-1199]

Two Other Astronomy Programs: The Planets and Sky Map

Review by Bill Moes

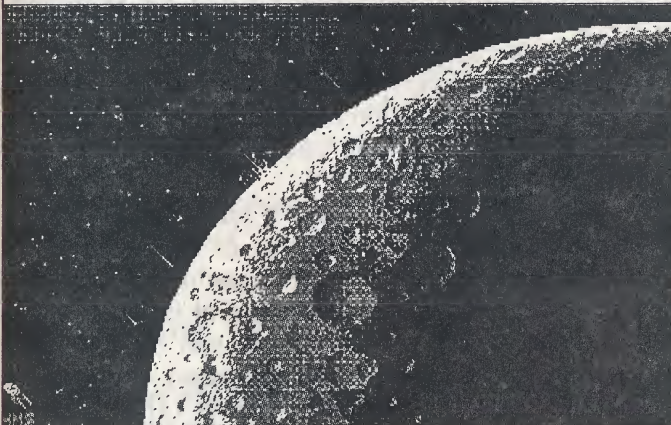
Two quality disks on astronomy are available as ST public domain offerings. They may appeal to vastly different segments of the astronomy audience.

The Planets (CN ST Library #268D) is a colorful, low-resolution slide show on our solar system. The well-drawn illustrations, by Hooman M. Simyar (HMS), are arranged from Pluto to the Sun. The show concludes with a "mankind will venture to the stars" finale, spaceships and all!

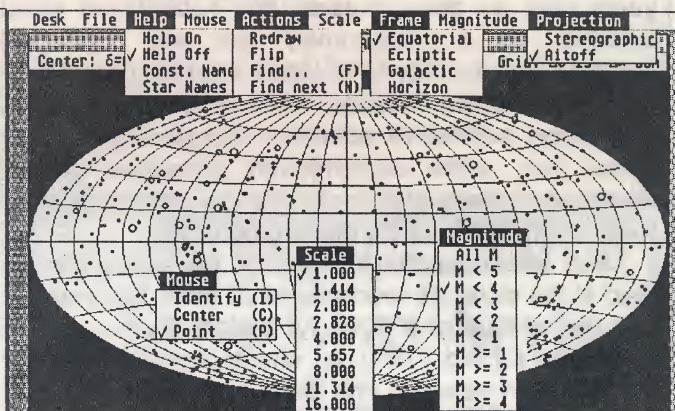
Most of the Degas Elite compressed screens contain some facts on the planets and moons, although this information is only a sampling of facts known about the solar system. Color cycling animation is used on many of the screens, usually to very good effect.

A handful of additional screens by HMS and other ST artists is tacked to the end of the show. These screens are on varied subjects.

The double-sided disk includes 52 screens and a slide show program for viewing. The quality, colorful illustrations should appeal to a wide audience.



Mercury's atmosphereless surface gives it a cratered surface much like our moon. [From The Planets.]



Sky Map: A star screen is shown, along with the GEM menus listing the options available.

Sky Map (v.4) (CN ST Library #103), written by J. A. Wrotniak, a Current Notes author, is a sophisticated entry on the public domain lists.

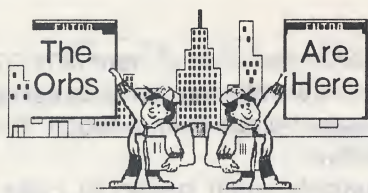
The GEM software will display a map of stars, find a star, or identify a specific star. The data includes 1,560 of the brightest stars.

A variety of options is available through the menu selections. The program is most suitable for serious amateur astronomers, although it is easily used and may interest others.

This program requires a monochrome monitor!

At the price of a public domain disk, you really can't go wrong with these two. Although vastly different in subject and style, they both demonstrate talented sophistication in their presentations.

[Current Notes ST Library, 122 N. Johnson Rd., Sterling, VA 22170 (\$4.00 each, plus \$1.00 postage)]



MANHUNTER NEW YORK

Review by Don Elmore



Sierra On-Line, Inc., has another winner. The box "hype" describes *Manhunter-New York* as "A tale of Orwellian horror, humor, and suspense,..." I agree, and I found the graphic adventure game both graphic and quite an adventure...so much so that I am having some difficulty getting this review started. Where to begin?? Well, let's start with the box. The box art is very well done, and states that the game requires at least an Atari ST with 512K of memory, and that it plays both on a color and monochrome monitor. The description on the back of the box talks about the game evolving around the life of a detective in New York City two years after an alien invasion and subsequent world takeover. As a "Manhunter," you are contracted (ordered) by the newly founded alien dictatorship to track and monitor humans' movements and activities and report subversive activities. The description also states that, unlike contemporary adventure games, *Manhunter* allows players to choose allegiance between good or evil as the game progresses.

But, let's open the box...all of the above can be read at the store...I'll recommend up front, that you buy this game and give it a try. Inside the box are a *Manhunter's* Field Guide, an official *Manhunter's* Field Map (of Manhattan on one side, and various points of interest on the other), various selected points of interest (more about this later), a handy quick reference card and five disks. Yes, I said FIVE!

Manhattan Devasted

The opening scenario is that New York has been devastated, and living conditions have eroded steadily since the invasion. The "Orbs" (invading aliens) have been working furiously on some sort of special mission. The Orbs have surgically implanted tracking devices in the backs of the necks of the remaining humans, and as a Manhunter, you have been chosen by the Orbs to assist them in monitoring your fellow humans. The title screen sequence shows the Orbs invading Manhattan, and on subsequent games, can be bypassed by pressing any key.

Portable Computers, Even

Your manual (field guide), written by the Orbs, describes the Manhunter Assignment Device (MAD) as

a small, portable computer linked by radio transmitter to the Alliance mainframe. MAD has two functions, storing or providing information and tracking humans by "reading" the human's position via the devices implanted in the neck. An overview statement identifies the game's main goal as, while tracking down humans for the Orb Alliance, learning the whereabouts of the human underground and ultimately discovering the true purpose behind the alien invasion.

The manual also has a five page "walk-thru," with the caveat that it contains helpful suggestions that experienced adventure gamers might not want to see, and cautions readers to continue reading only if they are having difficulty playing *Manhunter*. Well, I didn't even slow down my reading, and would have gone on for another fifteen pages...if they had been there! The first scene is you, in bed in your apartment. Looking out the window, we see an Orb flying past. The Orb enters the building and finally, your apartment. Its curt instructions are: "Attention Manhunter! There was an explosion at Bellevue Hospital! Investigate." From there, you are off and running...so to speak.

Target Locator

You fire up your handy-dandy MAD and learn that the tracking device shows a yellow target located at Bellevue Hospital. You can see how the "target" moves back and forth along one wall of the hospital, and when you travel to the hospital site, you are able to find where "someone" has blown a hole in the wall. You can enter the room and examine the cadaver on the gurney. The walk-thru instructs you how to get the name of the corpse and enter it in your MAD. It also suggests that you position your marker over the corpse's face and watch the scene until the baby orbs fly out of the face and attack you...EATING YOUR FACE!

Perhaps this is as good a place as any to talk about the overall subject matter of the game. If you are the least bit squeamish, then perhaps this game is not for you. There is a great deal of violence. Faces are eaten, heads squashed; you can (and probably will) die at the hospital, at the pawn shop, at the museum...and several other places. This particular Sierra adventure is different from the others. Using a unique command system (mouse or joystick oriented)

there are virtually no typed in commands. Nor is there the numerical score bar along the top of the screen. You do not know when you have found something particularly valuable or important. The instructions urge you to continually look around and examine everything. I heartily concur with the advice.

For example, I was particularly proud of myself when I was able to get into the sewer...but then literally spent almost two weeks (real time) trying to get out! I don't want to give away too many of the puzzles in the game...but let it suffice to say that by the time I had gotten to the sewer, I finally realized I had actually been shown a diagram or map of the sewers of course, it was not depicted as a sewer map ... still the information was there.

In addition to brain teasers, there are also arcade type challenges to conquer. The game is replete with both cerebral puzzles and hand/eye coordination puzzles...so I won't give away too much of the game by describing the Flatbush Bar sequence. Besides, it is also detailed in the manual's walk-thru. You watch the tracker monitor a target going into a bar in North Brooklyn, so you travel to the bar. As you enter the bar, you notice a video game on the left side of the room...but if you attempt to play the game, you will be interrupted by a group of bar patrons. They take you to one of the tables, hold your arm on the table, hand face down with your fingers spread apart. The bartender proceeds to throw knives between your fingers, and then puts his own hand on the table and suddenly, you have a knife moving back and forth, in front of his hand. Clicking the mouse button tosses the knife, and if all four land between his fingers...well, you win that round, and are given a valuable clue. If you throw a knife outside of his hand area, you are rather unceremoniously dumped out on the street. If, on the other hand, you blink (as I did several times) and actually manage to pin one of his fingers to the table top....the bartender squeezes your head like an overripe peach...Pop goes the weasel! After you finally manage to throw all four knives between his fingers, you are then allowed to play the video game...and, if you win that, you are also exposed to additional clues. One nice feature of the game is a friendly "time out" when you are killed; some fellow humans come on screen and commiserate with you and help you through a replay of the recent action(s) that took you out.

The Last Hint

The best advice is to keep track of everything. Wherever you are, look for clues. Believe me, they are there! For example, in Abdul's Pawn Shop you'll run the very real risk of losing your head (literally) unless

you can convince Abdul that you are friendly...and something you should have noticed in Trinity Church will help you keep your wits with you. There are also hints that will assist you in opening the door in the dark corridor. Close scrutiny of your surroundings will also provide valuable information about combinations and some pictures? And this is the last hint...if you are able to access Phil's computer you will be able to identify four of Manhattan's SPIs (significant points of interest) that are actually Orb strongholds, and each one plays a very definite role in the Orbs' plans for complete dominance of Earth. You can make their day most unpleasant, and probably should do so. But, with over 250 screens, including realistic maps of New York City, there remains more than enough action to keep you on the edge of your ergonomic computer workstation chair. Depending upon your level of adventure gaming expertise, you can have hours, days or weeks of fun with this game. I did. And, at \$49.95, it is well worth the expense.

[Sierra On-Line, Inc., PO Box 485, Coarsegold, CA 93614]

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Labels For Those Keys

by Steven Rudolph

FunctionZ, by Regent Software, is a system (software and hardware) that produces labels for the ST's function keys. All in all, I was favorably impressed. It's well designed, easy to use, inexpensive (if you can get it at a discount), functional and does what it's designed to do. All you have to ask yourself is do I really want function key labels?

FunctionZ comes with six plastic stands to hold the labels it prepares, enough for three programs. These fit in the space between the top of the function keys and the case. Each stand covers five keys so it takes two to cover all ten keys. Labels are printed out in two sets of five and fit perfectly in the stands, resulting in a really good-looking final product. I've seen some really low-tech attempts to label function keys that seem almost primitive, like strips of paper, Post-it notes and cut-up 3X5 cards with hand-written descriptions that wander all over. By contrast, *FunctionZ* gives you a high-tech alternative and, after all, isn't that what computers are all about.

Does Not Necessary

Here is a textbook implementation of a GEM program. *FunctionZ* runs itself from the pull-down menus and if you need help, it's there on line. *FunctionZ* doesn't come with an instruction manual and it doesn't need one. There is really no reason for me to describe how to operate the program; it's completely intuitive. If you know how to open a disk icon and run a program you can run *FunctionZ*. I can't find any fault with the implementation.

It's not copy protected but before you can use the program the first time you have to fill in a screen with your name and address. It then prints out a registration letter. After that, every time you boot the program it displays a screen for a couple of seconds stating that the program is registered to you. This is the least offensive form of protection I've encountered.

Design Your Own

FunctionZ comes with about 30 files, each with labels for a popular program, heavily weighted for Regent's programs. There is one file for *FunctionZ* itself, but the program is so well designed that you'll probably ignore the function keys and use the mouse in its operation. You can just load these files and print them as is or edit them if you wish. Editing is straight forward and GEM Based. If your program isn't there, you can easily make your own and save the files for future printing or passing to others with the program. *FunctionZ* gives you three formats to choose from: blocks of four, ten-character descriptions for each key with a two-line full-width area above the key descriptions (useful for little hints); blocks of two, ten-character descriptions for each key with two, two-line full-width areas above and below the key descriptions; and a free-form without blocks. You choose the format from a screen when you choose the new option.

I have an Epson LQ-800 (24-pin) printer that *FunctionZ* drives right out of the bag (it doesn't come in a box). When you boot

from the disk, the Accessory menu will have a selection option for a printer driver installation program, so you should be able to use just about any dot-matrix or daisy wheel text printer.

Did I Need It?

Not being a power user, I couldn't see why I would want this program. Generally, I avoid utility and accessory programs. However, after looking into the program I found some real applications. *FunctionZ* really shines for games. Many games use the function keys but don't display their functions during play. Many's the time I pressed the quit key when I wanted to pause or else shot off the wrong weapon relying on memory alone to choose the appropriate key.

Also, I use *First Word* which shows the functions at the bottom of the screen at the expense of the editing window. *FunctionZ* gives me the whole screen as well as the function descriptions. I've also created a free-form set for *Sheet 2.0* (the shareware spreadsheet) in an attempt to see if I can use the program (I have a hard time remembering the commands). I found all of my applications more than trivially useful.

FunctionZ lists for \$24.95 but should be available at a discount. Extra plastic stands are expensive, Regent sells eight stands for \$13.95. It's a slick program with limited application, but what it does it does well.

[Regent Software PO Box 14628
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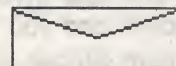
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Zany Golf

Arnold Palmer Meets The Twilight Zone

Review by Roger Abram

Nightmares Only

You won't find this miniature golf course on the boardwalk. Prior to its release, you would have only found it in your nightmares. *Zany Golf*, by Electronic Arts, features a miniature golf layout that is only possible through the use of computers, which in this case is the Atari ST.

As in any golf game, the object is to make par or less on each hole. *Zany Golf*, however, takes this one step further by carrying over to the next hole any allotted strokes not used on the previous hole. Flub up any hole so badly that your reserves dwindle down to zero and you'll find yourself out of the game.

Besides keeping your score low by skillfully playing each hole, you can also receive extra strokes by hitting fairies that periodically appear throughout the game or by making a hole under a timed limit when that option is randomly available.

Highly detailed graphics, animation, imaginative (and devious) layout design, plus a quality soundtrack, make for a challenging program for 1 to 4 players. When you want to show off what your computer can do, pop this program into your disk drive.

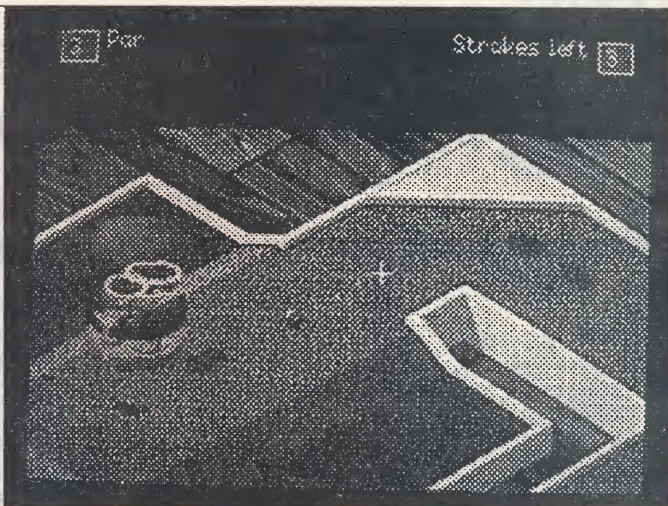
Though the paragraphs below can't really do justice to what you will actually see once the program loads, here are brief descriptions of most of the holes:

Windmill

This is the only hole in the course even remotely resembling one that you'll find in a true miniature golf layout. Shoot the ball up a ramp and get it through a windmill (watch out for the revolving blades) to have a chance at a hole-in-one or an easy finishing putt. Miss the windmill and you drop down through a lighthouse with a more difficult, but still manageable, putt. Getting it through the windmill awards you an extra stroke.

Hamburger

Bank your shot off a pile of catsup towards an angled corner to reach the hole. The only problem is that there's a hamburger bouncing up and down over the hole. Wander off the green and you'll find yourself down an embankment with a hill to contend with. Though I've come close to making a hole-in-one (that blasted hamburger keeps blocking the shot) the best I've done is a two-putt. A fun hole to play...keep your



eye on the catsup bottle as it squirts out the red stuff when you bounce off the pile!

Walls

A series of three angled walls that rise and fall lay ahead as you prepare to putt. You have to time your shot perfectly so that the first two walls are down when your ball passes over them so that the third wall deflects the ball down into the corridor that has the flag at the end of it. With practice, "Walls" is a sure two-putt and quite often a hole-in-one.

Pin Ball

This hole is torture and a lot depends on pure luck. The majority of this layout resembles a pinball machine where you have to fire the ball into play and then use your mouse as a flipper controller to hit the targets above and to the right and left of the flippers. Once those are hit and stay down, the ball has to make its way to the hole at the upper left to drop down into the playing field with an extra stroke added to your reserves. Though occasionally I can shoot this with one ball, most of my time is spent watching the balls sail out of play between the flippers or down the sides.

Fans

You start at a higher level than the flag and then use your mouse to control fans that will blow your ball along corridors, around corners and down hills towards the flag. An exciting layout which I've been able to two-putt once but which usually requires a minimum of three strokes.

Magic Carpet

When your ball lands on certain areas of this hole that are covered with red and white checkered squares (carpet?), you can use the mouse to guide the ball along its way. Hindering play is a bar that rises and falls before reaching the flag area. To the left and right of the hole are also bars that rise and fall making a

perfectly timed shot of the essence. A low score is possible if you can get the hang of moving the ball along the squares.

Castle

With this hole you start at the bottom of a hill which leads to a castle at the top. If you can bank the ball off a corner wall and up the hill to get the ball through the castle door, you stand a good chance of making this hole in two shots. Again, timing is crucial since the castle door only opens each time you hear a trumpet. Make it in the door and you can watch the ball wind its way around the castle until it drops down into the playing field containing the hole. If the ball drops down into one of the holes to the left and right of the castle door, you'll still find yourself on the playing field but in a much harder position to make a final shot.

Ant Hill

I hate this hole, mostly because I know what the next hole is like and I know I'm going to need every stroke in my reserves for it. In this layout you putt the ball up a hill towards the playing area which contains the flag. The major obstacle here is that the hole *moves* as the ball crosses the playing area at the top of the hill. When the ball rolls down into one of the eight corridors surrounding the hill, you'll find that at the end of seven of them are bumpers that you can click on which will push the ball back towards the flag. If you can keep the ball rolling over the hill from bumper to bumper, sooner or later you're bound to get lucky and the ball and the hole will connect.

Energy

Who would have thought that you'd need a hint book for a miniature golf game?! This hole is tough and only by trial and error will you find the proper sequence for completing it. The first time I made it to this hole I came in with 11 strokes and still didn't successfully finish it. Here you'll want to hit the two buttons on the computer that is situated directly in front of your starting point. At all costs, time your shot perfectly to avoid the moving energy fields or your ball will be obliterated. Once these two buttons are hit, putt the ball to the metal plate behind the tee-off spot. Once here, you'll be transported to the middle level where you'll have to putt to line yourself up with the ramp that leads to the upper level containing the flag. After putting up to the top level, getting to the flag is no easy matter as there are trap holes on this level that will drop you back to the beginning level if your ball lands in one. Guess where my ball keeps landing?

The one time that I did make it through this hole was after I contacted Electronic Arts for help. I was told to putt the ball into the mouse hole to the right of the

computer when the two mice eyes inside flash red. I tried this several times and nothing happened. Finally, I decided to shoot the ball full force into the hole the next time the eyes were red. It worked!

Bonus Hole

This hole features a "Breakout" type scenario where you putt the ball onto a hill and then control a paddle with your mouse. Once all the obstacles have been removed, the ball can be hit into a hole where it will drop down onto a checkered putting green. Here the squares seem to pulsate randomly and I didn't wait around long enough to find out what happens if the square my ball was resting on suddenly lit up. I quickly shot the ball towards the flag and it dropped in.

Though frustrating at times, *Zany Golf* will provide you with hours of amusement as you try to master all the holes in preparation for the final two. I only wish it had the option of letting you practice each separate hole (with just enough strokes for par) instead of making you play each hole in succession to get to the one(s) you want.

[Available from Electronic Arts, 1820 Gateway Drive, San Mateo CA 94404, (415) 572-2787. List price \$39.95. Color monitor.]

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DEVON AIRE

A House Full of Horrors Plus Diamonds

by Brian Miller

Welcome to Crutchfield Manor! Lady Crutchfield III is expecting you. What, you didn't know? Aren't you Devon Aire, the world's most notorious jewel thief?

Oh, I see. You thought you were still Harvey Hagelmeister, Junior Accountant for Feldman & Zeldman Construction. I certainly understand your confusion. Your identity has been mysteriously, though temporarily, transformed. It changed the minute you popped in your *DEVON AIRE* game disk and turned on your Atari ST. Whether you know it or not, you traded your mundane life for a thrilling, yet perilous, existence.

Now, as *Devon Aire*, you face your biggest challenge, and the stakes couldn't be higher. You either find the 16 blue diamonds scattered throughout the manor home, or you will die! How can that be, you ask? Though you obviously booted for more than you bargained, I will explain.

It Ain't No Cakewalk

At first glance, *Devon Aire*, by Epyx, appears deceptively simple to play. The player needs only to stroll through a luxurious manor home. With a sharp eye, carefully search every nook and cranny for signs of the missing gems. Be sure to move furniture and household artifacts to avoid overlooking hiding places. When your Devon Aire character discovers a blue diamond, return it to Lady Crutchfield to earn points and eventually win the game.

If you are yearning for a real challenge, don't despair. While the game may sound easy to play, I can assure you it is a formidable challenge. Unlike the Rolling Stones song, time is not on your side. In fact, it is one of your biggest enemies. From the moment the game starts, the clock works against you. You can watch your life energy slowly ebb as you furiously look for the missing diamonds. The life counter will keep track of your strength and signal when you have run out of steam. *Devon Aire* gives you three

lives with which to start. When you exhaust your final life, the game brings you to the foyer of the Manor. You can opt to quit or play again.

One remedy in the difficult fight to conserve time and strength is *Devon Aire's* equivalent to Gatorade. As you begin your search, you will find items scattered about the home. When you find a full goblet of juice, drink up, and replenish your strength. You will also find books, tables and other furnishings carelessly strewn around the mansion. Take note since they could come in handy. You can stack objects to increase your reach.

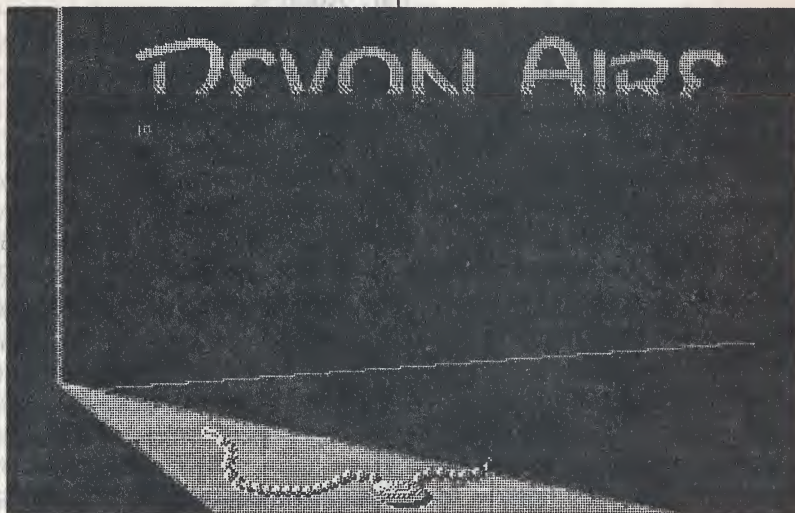
Montague Crutchfield, deceased husband to Lady Crutchfield, has unwittingly worked against your success. His progeny of failed lab experiments are all too plentiful. Hardly a room is safe from one of these mutant creatures. Turkey-size canaries will peck at you until your *Devon Aire* character is dead.

Unrelenting pig mice will chase you until you drop. Even if the creatures fail to kill you, they will diligently try to thwart your search efforts. Often, the only hope for survival is a quick exit from an inhabited room. The game documentation hints of ways to keep these creatures at bay.

The directions advise you to find a cagey way to fetter the killer canaries. They also urge you to feed the mice their favorite snack. It won't take long before you find pieces of cheese to divert the hunger of these man eating mice. Unfortunately, retrieving the cheese is a feat in itself. It is typically out of reach and requires planning to get it. Caging the canaries is an even more tedious chore.

To keep you from getting bored, the game includes a few more peculiarities. If the phone rings, answer it. As long as you hear the monotonous hold tone, the beasties will leave you to your work.

The layout of Crutchfield Manor makes no sense at all. It is very easy



to lose your way and become hopelessly lost. With killer creatures on the prowl, mapping the floor plan and noting a room's furnishings is quite trying.

A Well Conceived Game

Devon Aire by Epyx, joins the growing ranks of hybrid games. It is neither a text adventure nor an arcade game in the classic sense, but combines elements of each. It takes full advantage of the ST's large memory, ample graphics and sound capability.

The game's creators depict Crutchfield Manor in a very realistic fashion. Its 50 rooms are completely furnished, and often cluttered with household fixtures. The discovery of a new room is a treat and challenge. Fast paced *Devon Aire* provides so much detail, it is often difficult to uncover every item of value in a single visit. I have made important discoveries in rooms I thought I had thoroughly searched, after several tries.

The game's sound effects and musical introduction are equally well done. The musical score alerts you to the real challenge ahead. The creatures utter noises you would only expect of mutants.

Devon Aire comes on one single sided disk. You can play the game with either the keyboard or joystick. Once you choose, however, you cannot switch until

you finish a complete game. The disk is copy protected, but you can pause or save a game.

The Bottom Line

Indecision frustrates me. Most of us want a quick sharp bottom line answer. Is the product worth buying, or not? In playing *Devon Aire*, and in writing this article, I have come to discover how hard it can be to deliver a black and white verdict. Although I have to hedge a bit, I will try to give you some basis for your choice.

Devon Aire may not be enjoyable for the casual player who is looking for immediate gratification. Would you enjoy starting a game over and over because you have died of thirst, suffered a fatal animal attack, or become hopelessly lost? If not, then you may find *Devon Aire* more frustrating than you would like. You will have to play repeatedly at first, before you begin to achieve much success.

Closet sleuths and housebound jewel thieves will enjoy *Devon Aire*. The superior graphics and sound enhance this stimulating game. To win or even score points demands a combination of agility, cunning, and planning. Do you yearn for a chance to run the gauntlet? Are you a quick study of detail? If so, then I suggest *Devon Aire* will entertain, challenge, and amuse you for a long time.

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While SAC Watches Over You..

An Informative Night At NORAD Hqs

By Wm. Price

On Labor Day weekend, it was a quiet night in the underground operations center at North American Air Defense (NORAD) Command.

Glassnost has defused a previously tense world situation.

Soviet troops have withdrawn from Afghanistan, Solidarity has rapidly risen to power in Poland, and East Germans are finding new escape routes to the West through the open borders of Hungary.

Now the War Against Drugs has overshadowed East-West tensions, and new surveillance techniques are being used to spot small aircraft delivering illicit narcotics from South of the Border and Caribbean areas.

While the President was fishing in Kennybunkport, the Sunday night shift at NORAD was confronted with no unusual activity on the early warning radar nor did scrutiny of a continuous stream of satellite data reveal any tell-tale tracks that might be worthy of attention.

With all these monitorings taken care of, it was time to check the status of orbiting satellites and the few meteors circling our apparently calm planet.

What Soviet satellites are crossing the continental U.S. and what is the position of our Big Bird?

Norad In Your Own Home!

Does this sound interesting enough to fill the void of a Sunday evening in your home? If so, this tracking facility is now readily available with NORAD for your ST.

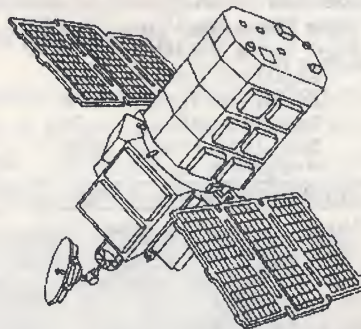
Behind Closed Curtains

And, furthermore, it can be operated in the security and privacy of your own computer room. It doesn't come to you in a registered

plain brown wrapper, nor do you have to hack into ARPANET to get access to this data. It's in the public domain and available on Current Notes Disk #370.

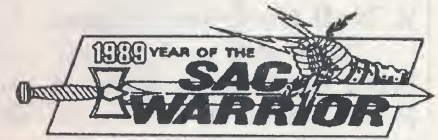
NORAD consists of a program compiled from GFA BASIC and a companion ORBITALS.DAT file containing data for 97 different satellites and meteors including LandSat, NOAA, Cosmos, Salut, Big Bird A, Molniya 3 and Nadezhda. The program displays best on a color monitor, and once executed, you are requested to enter data about your location including time offset from GMT, latitude, longitude, and elevation. If you don't have an active internal clock, NORAD gives an option for setting date and time.

If you live in Washington, DC, enter -4 for GMT offset, latitude 38.9 (decimal minutes), longitude 78.0, and elevation of 0 feet. This will put you at the base of the Washington Monument.



The coordinates are used to give an azimuth bearing and the elevation angle for outdoor viewing of a satellite from your location. After these settings are entered, the data file is loaded and the screen comes alive with activity.

NORAD displays a map of the world with the Atlantic occupying center stage. Land masses stand out in brown against a black background. Immediately, the map is lit



HQ STRATEGIC AIR COMMAND

by red dots representing the position of all satellites at execution time. Your location is marked with an X, and streaks of bright blue will begin to trail the red satellite dots as they move across your screen in orbital paths.

And There's More

Place the tip of your cursor arrow on a red dot and click to display data for a satellite. At the top of your screen, and relative to your location, appears the directional azimuth, viewing elevation, altitude, latitude and longitude, orbit number, and satellite name. Click again on another dot and data for that satellite or meteor will appear. Click on the X, and get the informative message "That's not a satellite, that's you!"

The locations and activities displayed are interesting for those who are being introduced to orbiting bodies. First, you will realize that the skies are becoming as crowded as the Beltway or National Airport.

Just above New Guinea are three stationery satellites parked as communication support for the widely dispersed island communities of Indonesia. There are several similar satellites in the Pacific to the west of Central America.

And you will also observe that the various satellites don't move in the same general direction. Most are in polar orbit, with some moving from North to South and others in the opposite direction. Although the countries of origin are not displayed with messages, in many instances satellite names are indicative of the source.

Press F1 to toggle between a white background, black orbital paths, and green land masses. ALTERNATE/HELP will dump the screen to your printer. F2 toggles the world map drawing while CLR HOME redraws orbital tracks. F3 toggles the clock On and Off.

For Inquiring Minds

With lights turned out in your ST computer room, NORAD produces a colorful but eerie show that raises more questions than answers for an initiate.

And don't cheat by calling the Naval Observatory or NASA—it's time for student research in the public library and a paper for the science class.

A Challenging but Provocative Assignment

Perhaps today's high school scientists are far ahead of us; so if the teacher isn't excited, send your findings to *Current Notes* where the rest of us can be properly illuminated by the upcoming scientific generation. As a starting point, list the DAT file and identify country of origin and launch date for each satellite. Although satellites can't be easily hidden, contacting government agencies or Embassies in Washington about the purpose of a related satellite and other data about it might be met with a tightening of a certain muscle that tends to contract under stress.

Other Sources

Just what are the best open sources for information? *Orbit* magazine is a good starting point. The March/April 1981, Issue 6 will provide background on orbital prediction calculations.

Dr. T.A. Clark, of neighboring Clarksville, Maryland developed the AMSAT Orbital Prediction Program from which calculation subroutines were ported to the ST NORAD version by Scott Tilley, and precise plotting of positions are accomplished with a routine that

accounts for the flat earth display. The graphic interface and world map were contributed by John Logajan.

Darth Vader Lives

Updated orbital data is available for download from the Celestial BBS in Ohio on (513) 427-0674. The U.S. Naval Observatory operates the Astro Board with a GeoClock program that displays time zones and times throughout the world as well as sunrise and sunset time with azimuth for any location. The premier scientific bulletin board is Death Star operated by AT&T.

The name was derived from a logo in Star Wars that resembles that of AT&T's. For other sources, search local BBSs for Mike Fock's comprehensive list of bulletin boards within dialing distance of metro Washington. He updates it constantly, and the list is sizeable.

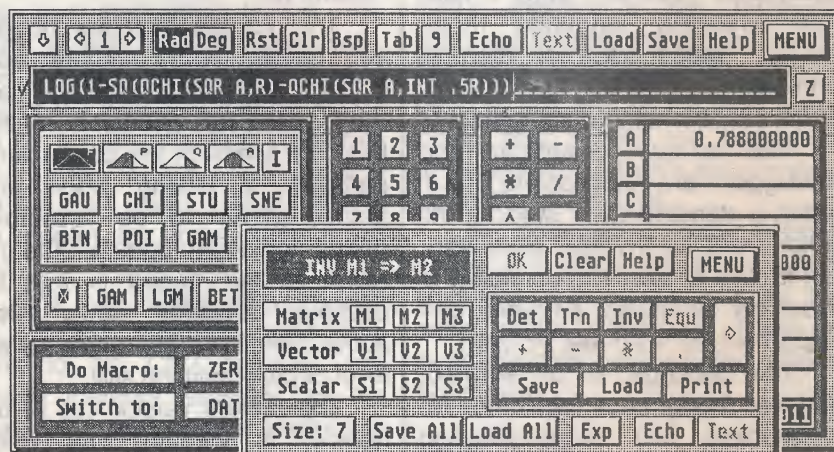
With a new season of school starting, NORAD opens an avenue for some informative papers on the world of satellites, their characteristics, and purposes.

Thanks to Alex F. for porting this GFA BASIC program from USENET. He has underscored again that the ST is not only a superb host computer, it also fills an important niche in education and science.

The Current Notes NORAD Folder contains ORBITALS.DAT, the BASIC code NORAD.GFA, a compiled run-time version NORAD.PRg, and GFABASRO.PRg for interpreting and executing the BASIC code on the fly. Another public domain GFABASR3.PRg won't work since it is for programs written with GFA BASIC 3.0.

I wonder how NORAD behaves with the math coprocessor board? Enjoy!

If you are a scientist or an engineer,
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Reviewed in *Current Notes* May, 89 and in *ST Informer* September, 89

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DevpacST

An Assembly Language Development Package

Review by Stephen D. Eitelman

Introduction.

Michtron is now marketing *DevpacST*, an assembly language package by HiSoft, the creators of *HiSoft Basic*. The major portions of *DevpacST* consist of an editor, an assembler, a linker and a debugger. The editor is used for creating source code written in standard Motorola MC68000 assembly mnemonics. The assembler is used for creating machine language from the source code and will create stand alone programs in the wink of an eye. The linker is used to link programs to other programs such as *Lattice-C* or *HiSoft Basic* (naturally!). The debugger is used for examining programs that have been assembled and do not work properly. The debugger takes assembled code and turns it back into assembly language mnemonics, keeps track of memory contents and lists out the contents of the 68000's numerous registers.

The editor, assembler and debugger are accessible from within a standard GEM window; the linker must be invoked separately, but its use is generally unrelated to assembly language program development, so is no real problem.

The debugger is full-featured, and well thought out. It provides for breakpoints and single-stepping through the program. The default screen includes four windows: a complete CPU register display, a disassembly window, a memory window, and a message window. Some care must be exercised to ensure that *MonST* (the debugger name) does not conflict with accessories or auto-load programs. More on this later. The debugger does have a few minor problems, but no show-stopping bugs.

Other files on the distribution disk include a file selector, libraries for AES, GEM and VDI calls, some utility programs and example source files. The example source files are particularly valuable for checking for proper operation of the package, learning assembly language, and studying the use of *DevpacST*.

DevpacST is not a unique product. There are a number of assembly language packages on the market, but this one is probably the best integrated one I have seen. It certainly avoids the constant loading of editor, assembler, and debugger programs. Other assemblers include the Atari *MAD-MAC*, GST's *ASM*, the MCC *Assembler*, *K-Seka*, *Fast ASM* and *AssemPro*.

The various portions operate very quickly. Some portions were, in fact, written in assembly and their speed of operation reflects this. The speed of the assembler in particular is striking. Short programs appear to be assembled during a screen update! The net result of this speed is that the package becomes nearly interactive, which is a great help for any level of programming skill.

The current version (as of this review) is version 2.08 which means there has been a good deal of debugging and updating, making it a reasonably safe purchase. It retails for \$99.95 although substantial discounts may be available. Owners of earlier versions can update for \$50.00, a bit expensive for an update.

The SIG on GENie contained messages indicating there would be a companion tutorial in the near future, but no dates or prices were given. When the tutorial becomes

available, it should make an attractive "teach yourself assembly language" combination.

Editor

With the proliferation of word processors and a few text editors, users become fussy about what constitutes a "good" editor; selection becomes a personal thing. So what I have to say about this editor is really quite personal.

First, an objective observation: I did not find any bugs in the editor. It works as described in the manual; no surprises. The folks on the aforementioned GENie SIG did not have any bugs to report either.

Now the personal part: This is a bare-bones editor. It is sufficient for writing program source material, but lacks features that a devoted amateur or professional programmer might want. Cursor movement commands, in particular, are just the bare minimum. There is no provision for page or screen scrolling or moving from one screen or page to another. The cursor cannot be moved a word at a time or to the beginning or end of a line. There is, however, provision for specifying the line to move to. Block commands again are basic but adequate. Blocks cannot be readily unmarked after the marked portion has been dealt with. Nevertheless, I really cannot complain about a lack of truly needed commands. The editor is GEM-based, making it easy for the beginner to use, but not nearly as efficient as a command line editor in the hands of a skilled user.

The editor is, not surprisingly, very similar to the one used by *HiSoft Basic*. The only difference I found was a command under the preferences menu called End of

Line that featured two choices: wrap or stop. I picked wrap, thinking it would then word wrap at the end of the line. What it, in fact, did was wrap the cursor to the next line if a right arrow was pushed at the right hand end of the line or move the cursor back to the previous line if a left arrow was pushed at the beginning of a line. I did not find this a particularly useful feature.

Since the editor is the area from which the assembler and debugger are reached, it is in effect, a shell. It cannot be replaced with something more to the user's liking. On the other hand, it is generally adequate for writing source material.

Assembler

The real "wunderkind" of this package is the assembler. It is at once extremely easy to use and exceptionally fast. The first bit of code I assembled was only about 60 or so lines. The only delay I saw was the time required for the screen to update; the assembler clock said it did its job in 0.0 seconds! I thought something was wrong, but everything was fine. I then assembled 617 lines of code—it took 1.6 seconds! Now most fast compilers/assemblers are single pass programs. That is, they go through the source code only once, handling forward references as they go or putting them in a look-up table. This assembler is a two-pass assembler—it goes through the code twice, putting in addresses for forward references on the second pass after it has found out where they occur on the first pass. These programs are generally slow due to the two passes and the usual addition of a lot of bells and whistles. This assembler certainly breaks with that generality.

Once the assembler is finished, one is returned to the editor/shell environment with a key press where error correction can be undertaken or, on those rare occasions when there are no errors reported, the program can be run.

The assembler will assemble either to memory or to disk. Assembling to memory is, of course, very fast and very convenient for program development.

If the assembled code is to be linked to another program, the output can be made compatible with either the DRI or GST linkers.

I have but one complaint about the assembler: there does not seem to be a provision for creating an error file. My programs always have lots of errors and the error listing needs to be stored or printed out. I should not be forced to record all that bad news manually.

Debugger

The debugger is quite powerful. One window displays the status of the 68000 registers: D0–D7, A0–A7, the Status Register and the Program Counter. Another window disassembles the contents of memory into 68000 mnemonics starting at the current value of the Program Counter. A third window displays the contents of memory in both hex and ASCII format. The fourth window is a message window for error messages, etc. Any one of the windows can be selected by scrolling through them with the Tab key (which is not listed in the summary sheet near the end of the chapter, but is described in the text).

One can single step through the program, watching what happens to the CPU registers and related memory locations as the program executes one instruction at a time. Breakpoints can be placed at troublesome spots to stop and look at the program as it executes.

I had some considerable problem with a conflict between the debugger and (as it turned out) an auto folder program, namely Restart. Tracking this conflict down was a long, sad story that involved two phone calls to MichTron, a trip to my local retailer (100 miles away) to try his machine and the

intervention of Frank Sommers, the CN ST editor. The lesson from all this is be sure to remove **everything** in the auto folder and **all** accessories if you suspect a conflict! This is true for any software. It was also significant that when Frank called MichTron, two of their premier programmers got on the phone with me and were most helpful in suggesting what the problem might be. Their biggest help, however, was the observation that they were using *Devpac* daily in their own program development on the same machine I am using (an ST4) with no difficulty. This bit of data is also a tribute to the usefulness of *DevpacST*. Anyway, *DevpacST* and all its subprograms run fine on the 520, the 1040, the Mega ST4 and presumably, the Mega ST2.

The DevpacST SIG on GENie has a number of messages concerning the debugger. Their comments are in general laudatory, with only a few minor problems. The GENie messages report that the 'END' directive in the debugger does not point to the end of the file but rather to a point 32000 bytes beyond the end of the BSS segment. Also, labels and addresses apparently do not print out correctly using the 'p' directive.

The debugger is named *MonST*. There is a public domain machine language monitor with exactly the same name. They are, however, quite different products and clearly not related.

Manual

The manual is typical of HiSoft documentation: very readable and quite complete. It is missing an index, but the table of contents is fairly detailed, so finding things in the manual is not too difficult. It is 257 pages long and measures about 5 inches wide by about 8 inches long. It is a paperback with a hard bound spine. This is one of my pet peeves—it will not stay open

Continued on Page 53

Fire Zone

21st Century War Without End

Reviewed by Charles Crook

Challenges Unlimited

I have to admit that I've gotten very choosy on the types of games that I buy lately. For this, I lay the blame firmly at the doorstep of such companies as Omnitrend, makers of *Breach* and *Paladin*. Games such as these, which include a game editor that allows the player to create an unlimited supply of new challenges, seem to be the best thing since color graphics. When I saw a new game, *Fire Zone* by Datasoft, that also included this feature, it was a sure buy. Having now survived the initial euphoria and a dozen sessions with the fiendish intelligence within the disk, I now view the game with mixed emotions.

For those die-hard gamers that have played such die-and-counter military simulations as *Blitzkrieg*, this game will be very familiar. The appearance of the individual pieces, the design of the tactical maps used as playing fields and many of the elements of the play itself will make learning the game quite easy for such persons. You control one of two forces, the European League or the Pacific Combine, set in the hostile years of the 21st century. The world has been divided into large empires, each of which is bent on conquering the others. You can either play against the computer, or with another player. A demo is also included for those players not quite so firmly grounded in such simulations.

The game is not an auto-boot program, nor does it seem to be copy-protected, a great relief for gamers nervous about crashing a \$30 disk. The disk contains two programs and assorted supporting files. Nine pre-designed scenarios

are also included. Double-clicking on "FZ.PRG" results in, after a short load, a message to insert the data disk. As the package only comes with one disk, I quickly checked the documentation to make sure I wasn't about to trash the program diskette inadvertently. Unfortunately, the documentation fails to mention this. As it turns out, the program was indeed only searching for its scenarios, and I was presented with the main options menu. This allows the selection of the number of players, as well as which side you wish to play.

For the Experienced Player

There is also an insidious option called "hidden movement." The manual strongly advises against selecting this until you are more experienced. In brief, selecting this option will show only units within visual range of your units and computer-controlled movements will not be shown! This screen also scrolls thru the titles of the available scenarios, which are not the same as the filenames on the disk. Apparently, the scenario title is stored within the file itself. The standard GEM file selector is not used to choose scenario files, so all such files must be on the "A" diskette.

I selected the "First Blood" scenario and got ready to kill some Pacific Combiners. There are seven basic types of units available: Infantry, the Nova Gun (an artillery weapon), the Strider looks just like a Walker in Return of the Jedi, Grav Tanks (a cross between a tank and a hovercraft), Heavy Tanks, the Leviathan (very destructive), and immobile Com-Base. Each unit has

its own distinctive unit designator and icon, as well as statistics that describe its movement per turn, offensive firepower and range, and defensive armor. These are not listed in the manual, because each scenario could have different stats for the units. Thus, you could be fighting with an Infantry unit consisting of Rambo clones, or one made up of retired ballet dancers.

Activating the Units

The play of the game can be controlled either by mouse or keyboard, although the manual doesn't point out that the mouse is available. Clicking on a friendly unit reveals all of the numbers for that unit, although clicking on an enemy unit will only reveal how many elements are contained within the unit (from 1 to 15) and the unit's name. Double-clicking on your unit allows it to move, and displays a moveable arrowpad to select direction. Moving through the different terrains costs some types of units more movement points than others, as would be expected, and not all units can cross all terrains. Units can be moved until they are out of movement points, even moving through other units. Units can also be "stacked," although it turns out that this is a very bad tactic because the units in the stack do not contribute to each other's defensive or offensive powers. Stacking is also a bad idea because when a stack is attacked, each unit within the stack is simultaneously attacked.

Scenarios can also have the feature of reinforcements, which will join in on a particular turn and in a particular hex location. Thus, just because you have destroyed or seriously weakened all of the units currently on the board does not mean you are winning. This feature cost me victory after I had launched a successful all-out attack, only to see the enemy reinforcements roll in and wipe out my forces.

For War Gamers, a Smashing Success

A game in progress can be saved, and now the GEM file selector is used, in contrast to its absence in loading a scenario. Loading the game back in also uses the GEM file selector, which makes me wonder why the scenario loader doesn't. As it stands, the game cannot be used with a hard drive to store the various scenario files. All things considered, the game is a smashing success.

Now for the bad news: the scenario generation program is very cumbersome to use. As the documentation says: "...Designing a scenario from scratch can be a daunting task, so it's usually best to start by altering one of the existing scenarios ..."

No kidding.

The GAMEGEM.PRГ appears to be a product of an IBM programmer who is totally unfamiliar with GEM's abilities. Once it is loaded, the mouse can be used only to move the viewable portion of the map. It is possible to select which hex location is to be modified, but the mouse has been "hidden!"

Inside GAMEGEM, you are able to name your new scenario or select an existing one to modify, as well as the file name that it will be stored in. These are not the same name, and the program does not check for duplication of existing scenario names. You must also set the number of players, the player who moves first, and the maximum number of units in the game.

You must also define all statistics of every unit, to include name, offensive power and range, defensive armor and movement ability, and its deployment zone. You must specify the deployment turn that the unit will join the fray; 0 for the first turn, and higher numbers if the unit is to serve as a reinforcement. This is not too difficult, as there might only be 20 or 30 such units to define. Still, standard dialog boxes

would have made this much easier and faster, as each unit has 12 commands that are used to create it! Once a unit has been created, you can "Clone" the unit to create identical copies which can then be given individual names. You can print out an individual unit's statistics, but to print out statistics for all units would require selecting and printing each unit one by one.

Making the Map

The real work appears when you generate the map. If you are starting from scratch, you will be presented with a playing surface totally filled with a "Clear" type terrain. To modify a hex, you must select that hex and then press "T" to modify the terrain, followed by a number (1-7) to indicate the particular terrain type. As the program does not tell you which terrain type is which, you must have the documentation handy. Placing a road in a hex requires two sets of actions, as you must specify the entrance and exit edges of the road in the hex. Placing a river requires the number of the hex edge that the river is on.

Datasoft supplies a sample hex grid which is the same size as the actual playing field (about four times as large as the screen) which can be duplicated and used to draw a map before using GAMEGEM. Somehow, that seems like twice the work.

Saving a scenario consists of giving it a filename in the format "SCENxxxxx.FZ"; each xxxxxx is a unique number unless you want to overwrite an existing file. One annoyance is that after saving and returning to the desktop, the program places the desktop in black and white!

Summary

Fire Zone is a very challenging game which cannot be "solved" once and for all. The ability to

create new scenarios, even if requiring some time and effort, is a great plus. The game itself is clever, and the program is quite intelligent during play.

The drawbacks are the difficulty in creating scenarios, and the requirement that all scenarios be contained on a diskette in drive "A." Also, if you own a hard drive, the drive should be parked and powered off when FZ or GAMEGEM is booted. The game does work on a Mega4, and the blitter does not cause any problems.

DevpacST (Continued)

on the desk and eventually, the spine gets cracked. What is wrong with spiral binding???

There are nine excellent appendices that include a list of good references on both 68000 programming and ST specific reference books plus an appendix covering the 68000 instruction set. The manual is not a tutorial on assembly language programming (and was not intended to be).

Conclusion

DevpacST is an excellent, well integrated, well documented assembly language programming package at a moderate price. It may be the best one available. For the money, it probably cannot be beaten.

If you buy *DevpacST* and the debugger doesn't work, remove all auto folder programs and accessories and put them back one at a time until the offender is found. It definitely will not work with RESTART.PRГ installed, so there may be others.

If you have access to GENie, check out the three topics devoted to *DevpacST* for the latest discussions.

Is There a Paperclip 80 in our Future?

A while back I received a letter from Dave Harris of Fargo, North Dakota. In it, Dave praised both *Turboword+* and *AtariWriter 80*, two new programs that make use of the Atari XEP80 80-column adaptor. Dave, however, would like to see Electronic Arts release an 80-column version of *Paperclip*. *Paperclip's* "...command structure coupled with the RAM-resident spell checker leave the above two word processors in the dust," Dave contends.

Obviously, EA is not going to release "Paperclip 80" unless EA's decision makers are fairly certain that such a product will make a profit. That is highly unlikely considering that so few XEP80s have been sold to date. When that situation improves greatly, then perhaps a write-in campaign might work. Until then, let's do our best to see that sales grow for the XEP80.

Burying the Hatchet with Commodore

For years Atari 8-bit and Commodore 64/128 owners have been natural enemies. Commodore entered the home computer market after Atari had established itself as the 8-bit with the best sound, animation, and graphics. Undercutting its nearest competitor by selling its machines at dramatically lower prices, Commodore quickly stole the lion's share of the low-end of the market. Since then, Atari owners have boasted of their machine's superiority to that of the Commodore usurper. Despite this, many Atari owners have envied their Commodore counterparts because of the depth and variety of software available for the C-64 computer.

In the past few years, three phenomena have occurred to undermine the C-64's dominance in the market: competition from cartridge-based game machines, particularly the Nintendo model; the presence of low cost MS-DOS machines; and an intra-company rivalry with the company's 16-bit Amiga.

As in the case of the Atari 8-bits, Commodore's older models have had to take a back seat to the newer 16-bit machines produced by their company. Much of Commodore's design, production, advertising, sales, and distribution resources now are centered on the Amiga and not on the "lowly" C-64 or compatible C-128.

Dave Harris, in his recent letter, takes serious exception to this philosophy: "I follow a magazine called INFO, which deals with the dreaded enemy computer.... I noticed they are constantly trying to push their C-64 readers into buying Amigas.... INFO even goes so far as to blame the large C-64 user base for the lack of innovative software for the bigger machines.... I mean—come on, fellows—I am sorry we

8-bit users refuse to junk our machines to increase your user base!"

Dave continues by describing a sophisticated Apple IIGS-like, super Commodore 8-bit which rumor says Commodore is considering producing. Citing the poor ST and Amiga sales, Dave feels that Atari and Commodore should produce more powerful computers compatible with their existing, more successful 8-bit models.

Both companies already have tried marketing step-ups: the Commodore 128 (much improved from the C-64) and the Atari 130XE (added memory and little else). Neither came near the sales figures of the earlier models, although the former is owned by approximately two million people. Few programs were produced to take advantage of the 130 XE's extra memory, while the 128 attracted productivity software but few entertainment packages. After all, why should software manufacturers faced with large 48- or 64-K user bases, produce software only capable of running on the higher-end machines?

Because Commodore has so many C-64 and 128 owners, a new model might sell. Considering the relatively small Atari 8-bit market, putting development of its higher-end machines on hold could prove disastrous for Atari. Still, the selfish side of my 8-bit nature imagines a 640K 8-bit Atari with the software base of an IBM; the interface, sound, graphics, and animation of an ST; and compatibility with my enormous hoard of software. Thanks for the comments, Dave, and for giving an old 8-bitter something to dream about.

ICD, Are You Listening?

Die hard fans of *The Writers Tool*, OSS's cartridge-based word processor, write me often requesting that ICD (who acquired OSS's stock after OSS closed shop) update and market the product. In a recent letter, Segundo Acua of San Jose, California, offered some worthwhile advice to all designers and publishers of word processing software.

Mr. Acua begins by praising *The Writers Tool* and Bill Wilkinson (formerly of OSS) for incorporating Spanish fonts into his copy. Segundo would like to see *TWT* reissued, containing these special characters and XEP80 compatibility. "Properly announced and advertised here and abroad," Mr. Acuna continues, "it could create a potential **top demand** in the world's Spanish-speaking markets where Atari's 8-bit technology remains far from dead."

The only 8-bit word processor I've used which accesses Atari's foreign-language characters is *The First XLEnt Word Processor*. As to reissuing *TWT*, there is always that possibility. After all, ICD has been

responsive in the past in a large way to the 8-bit market. If many owners wrote or called ICD, perhaps that would do the job. Those wishing to do so, should write Tom Harker, ICD, 1220 Rock Street, Rockford, IL 61101-1437, or call (815) 968-2228.

Mr. Acua also asked if I knew of someone selling "re-inkers" for printer ribbons as he has "...scores of ribbons demanding new inkings." If anyone knows of such a product, would you please let me know? Thanks.

Atari NewsDesk

(c) 1989, Atari Exchange of Louisville
Compiled by Lawrence Estep

Kentuckiana AtariFest Cancelled by Lawrence Estep

The Atari Exchange Of Louisville has announced the cancellation of the Kentuckiana Atari Fest '89 scheduled for October 28th and 29th at the Sheraton Lakeview hotel in Clarksville, Indiana. The primary reason for the cancellation was lack of support and a firm commitment from Atari Corporation. The problem was further complicated by the dismissal of Chris Roberts, user group coordinator of Atari Corp., who was helping with the organization of the convention. The AEL felt that the quality and reputation of the show could have been ruined by the cancellation of Atari Corp., and that the time restraints caused by the October convention could have caused many coordination problems.

The convention has been tentatively rescheduled for some time in July, 1990, and interested exhibitors may contact the AEL Kentuckiana Atari Fest headquarters at (812) 944-8997 for more information. The Atari Exchange Of Louisville would like to thank everyone who expressed an interest in the convention and apologizes for any inconvenience that this cancellation may have caused. The AEL would also like to encourage user groups to exchange newsletters and PD catalogs with us. All materials can be sent to: Atari Exchange Of Louisville, c/o Lawrence R. Estep, 524 Roseview Terrace, New Albany, IN 47150-4457

New 130XE Released by Mark Elliott

The "NEW" batch of 130XEs that were produced this year (yes!) have the following changes made:

- 1) RAMs used (4), are the 41464 (4464) types (compared to 16 - 4164s).
- 2) The O.S. has minor changes:
 - The MEMORY TEST (from SELF TESTS) tests the extra 64K now! (in 4 squares);
 - Also, the MEMORY TEST checks the first 48K over TWICE as fast as before;
 - The KEYBOARD TEST has the F1-F4 keys missing on top (function keys), although the code that interprets them is probably there (like XEGS);

- Also, it types out "COPYRIGHT 1985 ATARI" at the keyboard test, when all tests are done (compared to COPYRIGHT 1983 ATARI, before);
 - And, the O.S. chip itself is on a 27256 EPROM, but only half of it is used! compared to the original, which was on a 16K x 8 ROM, 27128 comp.
- 3) Finally, the PIA is a completely different chip, a 68B21 (compared to the 6520/6520A on other Atari 8-bits).
 - 4) Last, but not least, the Owner's Manual (Rev. D), is now paper-bound, compared to spiral-bound on the original.

Hmmm, at least Atari went to the bother of updating the new machine (probably will save them money, being more reliable with fewer chips).

AIM Special User Group Offer by Pattie Snyder-Rayl

ANN ARBOR, MI--Has your Atari user group found itself spending a large chunk of its funds to produce and mail a club newsletter? Do you have an overworked newsletter editor who scrambles to get each newsletter produced? Does your club find it increasingly harder to have a quality newsletter containing original articles? Has your club tried including Z*Net supplements only to find that the increased production costs far outweigh the benefits?

Unicorn Publications, producer of Atari Interface Magazine (AIM), announces a plan to help Atari user groups overcome the hassles associated with producing a club newsletter. We invite your club to join groups from Michigan, Oklahoma and Texas in becoming a participating Club in Atari Interface Magazine for the unbelievably low price of only 50 cents per issue per member...for each member, that's only \$6.00 per year!

For the price many clubs are currently paying for postage alone, your members can have a high quality, national newsletter delivered each month to their doors. Here's how it works: Participating Clubs submit club news, minutes, reviews, editorials, and other feature articles on or before the 17th of each month. Participating clubs also supply mailing labels for their members and a check or money order for 50 cents per supplied label. Here at Unicorn Publications, we write monthly columns and features and do the "dirty work"--editing, laying out and producing the magazine and mailing each issue to the club members.

For more information on becoming a Participating Club in Atari Interface Magazine and other benefits of participation, contact Pattie Snyder-Rayl at (313) 973-8825. Or, give our BBS a call at (313) 973-9137 (300/1200/2400 baud).

Unicorn Publications can also be reached via electronic mail on CompuServe (ID 71361,411), GENie (UNICORNPUB), and Delphi (UNICORNPUB).

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6. ACTION! Modules #2
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3. DOS 2.5
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Utilities
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46. MYDOS 4.50
47. Pixel Artist Deluxe
48. Atari Reference Manual
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50. 1020 Printer Utilities
51. JIF Version 2.0
52. Draw7 (for XE only)
53. DOS XE
54. Print Shop Icons

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After a lengthy delay, *AtariWriter 80* has finally begun showing up on dealers' shelves. The

first in Atari's Application Series of programs for use with the XEP80 80-column module, *AtariWriter 80* is loaded with options and features that will satisfy most personal and professional writing requirements.

The first thing you'll notice about the packaging and manual is that they are almost identical to that for *AtariWriter Plus*. Inside the red and gray box, you will find a program disk with a 48K version on one side for the 800 and XL/65XE/XEGS computers, and a 130XE version on the other side. Either version can be used on the 130XE; the only difference is that the 48K program will not make use of the 130XE's extra memory. In addition to the copy-protected program disk, there is a separate 36,000-word dictionary disk for the built-in *Atari Proofreader* spelling checker, an owner's manual, and a quick reference card.

Equipment Requirements

The optimum setup for using *AtariWriter 80* consists of the following equipment:

- ✓ An Atari 8-bit computer with at least 48K memory.
- ✓ An XEP80 80-column module.
- ✓ Two disk drives (810, 1050, XF551, or Atari-compatible).
- ✓ A monochrome composite monitor. A color monitor will work fine, but a monochrome will give a much sharper, clearer display.
- ✓ A printer. If using something other than an Atari printer, you will need either a standard 25-pin parallel cable to plug into the back of the XEP80, or a printer interface that plugs into the back of your disk drive.

ATARIWRITER 80

Here at last!

Review by Stan Beville

Documentation

The 98-page owner's manual is informative and easy to read. It does a nice job of explaining the program's many commands and functions. In addition to a table of contents, you will find a good index and ample illustrations of the various menu screens from which you will be working.

There is one minor error which may cause some confusion at first: the printer driver function contains an extra driver for the Star SG-10 printer which is not reflected in either the manual's instructions or illustrations. When you select [P]rint File from the main menu screen, the printer driver screen will allow you to choose from 11 preset drivers rather than the 10 indicated by the manual.

You will probably want to keep the four-page quick reference card close at hand as you use the program—there are so many commands available that it may be hard to remember all the necessary key strokes. However, most of the key combinations are quite logical, and you will not have difficulty remembering the more important ones after using the program awhile.

Writing and Editing Files

Anyone who has used either *AtariWriter* or *AtariWriter Plus* will feel right at home with *AtariWriter 80*. All of the basic commands and functions remain much the same as those found in Atari's earlier word processors. The only significant difference is that 8-bitters now have a full 80-column screen to work with, instead of just 40.

You will not be able to take advantage of all the XEP80's capabilities, however. For example, with

the XEP80 you can change the screen color from white letters on a black background to black letters on

a white background. The default mode for *AtariWriter 80* is white letters on a black background only. And you can't change from a blinking to a steady cursor either—with *AtariWriter 80* you are stuck with a blinking cursor. The XEP80 also has the capability of showing true underlined text, another feature not supported by the program. *AtariWriter 80* shows underlined text in inverse video in the text editing screen. Admittedly, these are minor quibbles. Still, it's disappointing that Atari didn't make the effort to integrate more of the XEP80's features in its word processor.

AtariWriter 80 is completely compatible with any word processor that uses standard Atari DOS 2.0S or 2.5 formats. With an *AtariWriter* file you only have to delete the print formatting line at the top of the file before saving it back to your *AtariWriter 80* data disk. You can keep all other print formatting commands that you may have used in the body of the text file. You can even save your file in ASCII format.

With the 48K version of the program, there are about 11,000 bytes of memory available for writing. This works out to a little more than three pages of single-spaced text, or about seven pages of double-spaced text. This could be somewhat of a drawback if you have a lengthy writing requirement. However, you do have the capability of chaining files together when printing to form one long document.

The 130XE version makes better use of memory, providing over 47,000 bytes of RAM. This works out to over 15 single-spaced pages, or 31 double-spaced pages. As with *AtariWriter Plus*, the extra memory is divided into three banks

of 15K RAM each. When you run out of memory in the current bank, simply press [Start] [B] to go to the next memory bank and continue writing.

At the text editing screen, tab settings are indicated by 16 down arrows arranged across the top of the screen. You can accept the default settings as shown, or choose your own. Also at the top of the screen is a message window with the number of free bytes available in memory, error messages, and prompts. It also lets you know whether you are in Insert or Type-Over mode, or using lowercase or uppercase letters.

Beneath the message window there is space for 20 lines of text. When typing, text is placed flush against the left margin and completely fills up the 80-column screen. All of the normal text editing features are supported. You can even use Atari's international character set in your text.

You can type as fast as you like, and the cursor will zip right along with you. As you are typing you may occasionally notice gaps in some of the words on screen. The letters aren't being dropped: they just aren't being printed to the screen. Pressing the [BREAK] key will redraw the screen, reformatting your text and inserting the missing letters into their proper places.

When you are done writing and are ready to see what your document will look like on paper, press [Option] [P] to go to the Print Preview screen. In Print Preview you will get an accurate picture of margin settings, centered text, paragraph and line spacing, and so forth. But any printer control codes that you may have entered will not be shown. Underlined text will also be shown in regular video rather than inverse video. You move around the screen by using the [Control] [Arrow Keys] or the [Option] [Left/Right Arrow] keys. You can preview either the entire

document, or selected pages. While previewing, you cannot edit a file. If you decide not to continue previewing, you can return to your original place in the document by simply pressing the [Break] key. Pressing the [Esc] key will also discontinue previewing and place you back at the main menu.

The writing and editing functions of *AtariWriter 80* work well, but they aren't perfect. A case in point is the [Control] [Down Arrow] key, which does not always work properly with existing files that are loaded from disk. Instead of scrolling text up a line at a time, the arrow key will jump to the end of the file or the end of the current memory bank, depending on which version of the program you are using. This happens not only on files created with other word processors, but also with *AtariWriter 80* files as well. If this happens to you, press the [Return] key after jumping to the end of the file or memory bank. Then press [Select] [T] to go back to the top of the file. You can now scroll down the file normally.

Another annoying little bug makes its presence known when scrolling back to the top of the file. As you scroll up, the screen will often display incomplete or broken sentences. Nothing is missing, everything just looks sloppy. Pressing the [BREAK] key will quickly redraw the screen and correct the display. Scrolling down the file does not have this same strange effect.

Print Preview could be a lot smoother and easier on the eyes. When previewing text you use the [Control] [Arrow] keys to move the cursor up, down, left or right in increments of one to nine spaces. You can also use the [Option] [Arrow] keys to move the cursor left or right 28 spaces at a time. But the program has an extremely annoying habit of redrawing the screen when using the arrow keys to move in any direction. Regard-

less of whether you move one space or 28 spaces, the screen is blanked and redrawn each time you move the cursor. The effect is like watching a strobe light and can become quite distracting.

A minor limitation of *AtariWriter 80* is that it only stores files in single or enhanced-density. Thus XF551, US Doubler-enhanced 1050, or any Atari-compatible disk drives will not be able to make use of their double-density capacities. Instead of having 180K bytes available for text storage on a double-density disk, the best you can achieve is 127K in enhanced-density. This is not a serious flaw, but it seems a shame to waste so much disk storage space.

AtariWriter 80 does have a great many strong points. For those who need them, the program allows you to add either one-line or two-line headers and footers. The only limitation is that they cannot exceed the overall page margins that you set. The program will also number your printed pages, either with or without headers and footers.

A nice feature is the ability to insert files anywhere in the body of the current text file. *AtariWriter 80* will load as much of the file as it can until it runs out of memory. The 130XE program version will not allow you to merge a file across memory bank boundaries. A simple solution is to go to the next memory bank and merge the file again. You then delete that portion of the text that was loaded into the previous bank.

AtariWriter 80 has a word count feature that is both quick and accurate. It counts character strings rather than spaces, and comes quite close to the actual number of words in a document. You can get a word count for either the entire document, or for only part of it. This feature will be a boon to students, journalists, and everyone else who needs to be conscious of the length as well as the quality of their writing.

AtariWriter 80 has a very powerful Search and Replace function that allows strings up to 37 characters long and lets you use question marks as wildcard characters. You can replace strings on a case-by-case basis, or perform a global search and replace. You can also use the Search and Replace function to search for and delete words or phrases.

Mail Merge lets you create an electronic mailing list. You can then merge the addresses with your *AtariWriter 80* files. Mail Merge is actually a database program with space for up to 255 records. You can use the default format provided, or create your own forms. A record can hold 15 fields with up to 20 characters in each field.

Spell Checking

Once you are ready to check the spelling of your file, choose the [V]erify Spelling option from the main menu. The *Proofreader* program then loads from the program disk. This takes about a minute.

When the *Proofreader* finds a word that it doesn't recognize, it will highlight the word and give you three choices: Correct Word, Keep This Spelling, or Search Dictionary. Correcting the spelling of a word is easy and straightforward. If you accept the word's spelling as is, the program won't flag later occurrences of the same word.

If you aren't sure of the proper spelling, choose the Search Dictionary option. You then enter at least the first two letters of the word you want searched. *AtariWriter 80* will quickly search its dictionary disk and provide you with a list of possible spellings. Once you have finished searching the dictionary, you can go back to the Correction menu to correct the word. Unfortunately, the manual's instructions for getting back to the Correction menu are not very clear. The only way to get out of the Search Dictionary function is to delete the

letters that you entered for the word search using the [Delete/Bk Sp] key. Once you have deleted the letters, press [Return] to go back to the Correction menu. However, a word of caution: Do not use the [Shift] key in combination with the [Delete/Bk Sp] key to delete the letters. Doing so will lock up your computer and you will have to power down and reboot all over again. I learned this the hard way. The procedure is not as confusing as it may seem. Just follow the prompt at the top of the Search Dictionary screen and you will have no difficulty.

You can even create personal dictionaries for use with the spell checker. On all 8-bits except the 130XE your personal dictionary can be up to 8,400 bytes long (about 1,200 words). On the 130XE you can only load 4,396 bytes of personal dictionary into memory at any one time. This works out to about 628 words. This ability to supplement the basic dictionary can prove quite useful for technical or specialized writing requirements.

The only part about using the *Proofreader* program that I don't like is that it accesses the disk drive continuously as it spell checks a document. This can add up to a lot of wear and tear on your drive. I don't have a memory upgrade for my stock 130XE, so I don't know if it's possible to load the dictionary disk into a RAMdisk, renumber the RAMdisk as Drive 2 and run the program that way. This would certainly save wear and tear on your disk drive, as well as speed up the spell checking process.

Printing

Printing with *AtariWriter 80* is pretty straightforward and affords a great deal of flexibility—you can configure the program for just about any printer. You can even print your file to devices other than a printer. Files can be printed to disk or through a modem port.

There are 11 preset printer drivers to choose from, as well as an option to create your own custom printer driver. You can even define up to nine different fonts with the Custom Printer Driver Editor. To take advantage of any printer features that the program doesn't support, enter printer control codes directly into your text files.

You can elect to print either the entire document, or selected pages only. And printing is not limited to just 80 columns: you can set margins up to 132 columns wide. You can even print in double-columns. In Print Preview the columns will be displayed side by side, just as they will be printed.

AtariWriter 80 allows printing through either the parallel printer port on the back of the XEP80, or through a printer interface hooked up to the serial port of your disk drive. I have an Ape Face interface connected between my Panasonic KX-P1080i printer and the back of my 1050 drive, and have had no problems at all using *AtariWriter 80* with this setup.

Summary

Atari seems to have done a good job of converting *AtariWriter Plus* to work smoothly and quickly with the XEP80. Although it is not entirely bug-free, *AtariWriter 80* is a very good package with a lot of versatility. It is suitable for anyone who writes a lot and needs a powerful, flexible word processor at a reasonable price. The list price is around \$50.00, but it's selling locally for less than \$40.00.

If you are looking for a good word processor and 80-column capability, you won't go wrong getting the XEP80 and either *AtariWriter 80* or *TurboWord*. There may be other, cheaper methods available to get 80 columns on your Atari 8-bit computer, but none will give you the compatibility and flexibility of these products.

The *XEP80* is a wonderful new product from Atari which enables hardcore users like myself, at last, to be able to compute on an 80-column display. Many would agree that Atari should have installed an 80-column display a long time ago built right into the 8-bit machines.

I, for instance, must argue that to do any serious text work other than DOS functions (e.g., word processing or using a modem), you should have an 80-column text display. Now that the *XEP80* has arrived, I no longer have to holler about the lack of having that option.

The *XEP80* retails for about \$70—a tad bit high considering that it is a solid state peripheral. I would assume that the chief cost of the *XEP80* is due to its usage of SRAMS (static RAM) chips—about 8K total for screen storage. This is quite interesting since you can turn your computer off and the screen will still be present, provided you have not turned off the XEP, nor the 80-column monitor. However, the SRAMS do have a drawback. Unlike DRAMS (Dynamic RAMS) which are inside your Atari, SRAMS take a long time to lose their memory even when power is shut off. Thus, if you turn off your *XEP80* and turn it on again quickly, you'll end up with problems.

The SRAMS within the *XEP80* have to be "primed." When you first turn on the *XEP80*, your monitor most likely will fill with garbage, because the card has not warmed up yet, and the SRAMS are in a sort of "undefined" state. This problem can be solved by turning off the *XEP80* quickly then back on again immediately. Hold it! I just said don't do that previously, right?! Well, once the *XEP80* is rebooted and the screen setup is ok (you'll see a nice cursor in the upper-left of the screen), you shouldn't turn off the card nor your monitor to which it is attached until you are positively finished using the card. If

XEP80 80 Columns for the XL/XE

Review by
Theodore Di Vito

you turn it off then back on again, the *XEP80* will go back into its undefined state which can only be alleviated by letting it "cool-down" for about 10-15 minutes, thereby letting the SRAMS completely forget their screen memory. So the rule of thumb is *don't turn it off until you have to*. Also, don't turn off the monitor to which the *XEP80* is attached also until you are completely finished. For some reason (at least on my system), turning off the monitor will send a berserk signal to the *XEP80* sending it off into the dreaded undefined zone.

I hope this hasn't scared any potential users away. Among the *XEP80's* many virtues are the fact that the SRAMS are more reliable for displays because they aren't as susceptible to power quirks.

As a peripheral, the *XEP80* is about half the length of a standard Hayes external modem. It sports the XE color-code system and features a power light on the front. In the back there is a serial printer port, power cable, and a cable which runs to your second joystick port. It is through this white cable that your screen information is sent to the computer. Atari decided to use a PIA port since if it had not done so, screen speed would have been drastically reduced. The *XEP80* is very fast. I use it frequently with a 2400 bps modem.

The output of the *XEP80* is very crisp. The built-in character set rivals my IBM and is very sharp and well-defined. I highly recommend using a composite mono-

chrome monitor with the XEP as a TV or color monitor simply does not have high enough resolution to make the characters legible enough. I have a color monitor connected to my Atari, and a monochrome monitor attached to the *XEP80*. Using both simultaneously, I am able to use both, for example, with Keith Ledbetter's *Express 850* on a cartridge. The *XEP80* runs the terminal mode screen and a few functions, and the color monitor displays everything else.

Graphics-wise the *XEP80* only supports the Atari character set and the ATASCII graphics characters. Modes other than GRAPHICS 0 will generate weird results—sometimes crashing the *XEP80*. The card was designed only for text processing, at which it does an excellent job.

In conclusion, I highly recommend the *XEP80* 80-column card for any serious user who does a lot of word processing or telecommunications. At \$70 plus perhaps a monochrome monitor (strongly advised), the *XEP80* is not for the casual typist. If you're a person who writes a lot of reports, papers, and electronic messages online, you'll want to view in a standard 80-column setting.

The *XEP80* includes a driver disk, a pamphlet, power supply, card, and warranty for 90 days and works with just about any setup that has an XEP driver (e.g., *SpartaDOS X* [again recommended]).

Time to RENEW?

Check your mailing label. If you see **8910** on line one, then your subscription ends in the 10th month of 1989, i.e. **October**, this issue! Send in your renewal form as soon as possible so you don't miss any issues. If you see 8911 or 8912, your subscription will be ending shortly. Renewing early is a great help to us and is greatly appreciated.

CHOPLIFTER!

Review by John Godbey

Choplifter! was released by Broderbund software for the Atari in 1982. It is now re-released by the Atari Corporation as an XE Video Game Cartridge. (It won't work on the old 800 machines.) I believe that the Graphics have been updated slightly (I don't have a copy of the original to compare), but basically it is the same game.

The "evil Bungelings" have kidnapped 64 delegates from the World Peace Conference. Your mission is to rescue them. The hostages are locked in four prisons. You must take off from your helicopter base, blast the prisons so that the hostages can get out, then land and pick them up. Your helicopter can hold only 16 passengers at a time, so you must make at least four trips to rescue all 64 hostages. You get a "point" for each hostage you rescue, so a perfect score is 64.

At the start of the game, your helicopter sits on a landing field. Using the joystick you take off and fly to the left towards the prisons. The view is of level ground with a few buildings and a blue sky with a few clouds. With the joystick you control the direction and altitude of your flight, and with the fire button you shoot your gun or drop bombs.

Your trips or sorties become progressively more difficult. On your first sortie, you are attacked only by some tanks. On subsequent ones you are also attacked by jet fighters shooting air-to-air missiles, and by drone air mines.

This game is quite well done as far as it goes. The graphics are quite good. The men run along and wave at you. The landscape scrolls smoothly as you fly your helicopter along. The sound is first rate. The tanks, airplanes, and drone air mines are "smart" enough to get you if you make a mistake in flying or strategy, but not so smart that you can't survive with careful play.

However, the game has two drawbacks which make it difficult to recommend. First, it is too straightforward. Gamesters who are used to games with multiple levels and screens and numerous different kinds of opponents will be surprised at this old (in computer years) game with only one level and only three kinds of enemies.



Secondly, the helicopter is very difficult to control. Frankly, I never mastered it. After dozens of games, I am still not certain how one merely turns the helicopter rather than shooting one of its guns. One review of this game said that it depended upon how long the fire button was held. The instructions claim that you just hold down the button to fire your gun, but you hold it down and then move the joystick to turn. Neither way would work consistently for me.

In summary, even though *Choplifter!* has some very good features I can't recommend it, principally due to difficulty in controlling the helicopter.

CRYSTAL CASTLES

Review by Bob Shutt

Poor Bentley Bear! It seems that he has had the misfortune of being deposited (courtesy of Atari Corp.) in an endless, three-dimensional maze. This is good news and bad news for Bentley.

The good news is that the maze (*Crystal Castles*) contains

goodies such as pots of honey (worth 1,000 points), and Magic Hats, which render Bentley immune to the more dangerous inhabitants of the maze. The bad news is that there are a lot of those dangerous inhabitants! Nasty trees actually creep up and attack the hapless bear, crystal balls try to knock him down, and killer bees protect the honey. Plus, witches, ghosts and skeletons prowl, all intent on dispatching Bentley back to Screen One.

The object of the game, of course, is the accumulation of as many points as possible before Bentley loses all his lives (he starts with three). Each maze is littered with precious gems which Bentley scoops up for points as he is chased by the evil creatures which lurk around. Bonus points can be earned by smashing the evil witch, eating a pot of honey, etc. An extra life is awarded for each 70,000 points.

I purchased this game for my four-year-old and was surprised to find that her twelve-year-old sister and both parents wanted to play. The game has sharp, colorful graphics, among the best I've seen since I started playing games on the 8-bit in 1984. One or two players are permitted, with one or two joysticks supported in two-player mode.

Part of the charm of the game is to be found in the various "secrets" the experienced player learns. For instance, a player can "warp ahead" to the next level. Evil gem eaters can be smashed, but only when they are busy feeding. Secret passages are everywhere, and they can be used to evade the predators that chase the bear.

The game's originality makes it a winner, too. There have been maze games for the Atari before, but the three-dimensional illusion of the game really sets it apart from its predecessors. I recommend *Crystal Castles*. It's something a little different.

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Although we started this list by listing Atari stores that were carrying Current Notes, we will list any store that carries Atari computers and/or software.

If you would like to have your store listed, please contact

Joyce, (703) 450-4761.

As new software for the eight-bit Atari systems becomes more difficult to find, it's nice to find that there are still a few programmers and companies committed to the support of our machines. Such a programmer and company are B.J. Martnick and Black Moon Systems, and their newest offering, at \$10.00, is a value-packed bargain.

For your sawbuck you'll get *LabelMaster*, the basic program, and *Multi-Column Lister*, an auxiliary program which allows you to print out your labels in a variety of formats. Both come without copy protection on the same side of a single disk, and are very smooth and professional, enabling you to produce flawless labels with a minimum of wasted time and head scratching.

In the past I've used my word processors to accomplish such chores, and every time I've wound up wasting a great deal of time and a disturbing number of labels before getting everything working properly. Once *LabelMaster* is properly set up, you can forget about such petty annoyances; you shouldn't even have to refer to the instruction manual again.

In the newest release, you're met at boot-up with an attractive menu screen and the choice of *LabelMaster*, *Multi-Column Lister*, or DOS. When you select the first of these, a pre-drawn, six-line-by-34-character box appears on the screen, and you are asked to select one of six possible operations: Create, Edit, Load, Save, Print, or Directory. To create labels you merely type within the box. Standard word processing keystrokes are available to expedite the task, and a joystick or track-ball can be used to position the cursor. When you're satisfied, press START to save the label in memory.

Labels can be printed from *LabelMaster* or *Multi-Column Lister*—as many as 9,999 copies of a single label. They may be pre-

viewed on the screen (though I couldn't get this function to work on my system, probably because of my odd printer setup) and even printed to disk. You may enter printer control codes directly within a label, and there's an auto pause option so that you can hand insert

LabelMaster & Multi-Column Lister

Review by Patrick H. Adkins

#10 envelopes in your printer. Another useful and innovative option is the ability to turn on or off printing of the sixth line of each label. This space could be used to record phone numbers or notes; turn it on to print out a personal address directory, off for mailing labels.

Multi-Column Lister allows you to tackle more complicated printing, with as many as six labels across the page. You can set spacing between labels and adjust the number of lines per page. With it you can also print out main directories, subdirectories, and alphabetized subdirectories from your disks. You can print "Group Print Files" (more on this later). There's a Printer Driver Editor, an option to print out your information on numbered pages with descriptive headings (for that address directory mentioned above), and controls for various fonts and print sizes.

These two programs are comprehensive in the extreme and come with eleven pages of detailed instructions (which are reasonably clear, but might profit from a more leisurely presentation of the purpose and scope of the programs). The author has attempted to supply just about everything one could want, and probably succeeded. Files are produced in ASCII for easy incorporation into other programs. RAMdisks are supported. DOS 2.5 comes on the

disk, but instructions are included to help you convert to SpartaDos or most other Atari DOS systems. All in all, an admirable job.

The only thing that disturbs me is that *LabelMaster* stores each label as a separate disk file; in DOS 2.5 this would limit you to 64 labels on a disk. One way around this limitation is the program's "Group Print File" option, which allows you to compile (and print out through *Multi-Column Lister*) a batch file of many

labels; the difficulty here is that such a "GPF" file can't be easily searched and updated; you'd have to load it in a word processor every time someone moved, or recompile it from your separate, regular files for each printing. For this reason, I wouldn't use these programs for lengthy mailing lists...but, on the other hand, I don't actually have any lengthy mailing lists, and the odds are you don't, either.

Where *LabelMaster* really shines is in small jobs (if you can call producing up to 9,999 copies of a single label small), which are probably what most of us spend an inordinate amount of our time trying to accomplish. With these programs you can design and print out attractive, decorative return address labels, videocassette labels, canned food labels, disk labels—flawlessly. At only \$10.00 postpaid (with upgrades available for \$5.00 to registered users), it's hard to go wrong on this one. And if we don't support those who support us, we won't have any new software at all.

[LabelMaster and Multi-Column Lister are available from Black Moon Systems, P.O. Box 152, Wind Gap PA 18091.]

Patrick H. Adkins's second fantasy novel, **Master of the Fearful Depths** (which was revised on an Atari 800XL), is now available in most bookstores.

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M5: Disk Librarian. Disk Librarian V1.82A. Includes listing of CN Magic/Spectre Library.

M9: Utilities #2. Bind Icons, Change Appl. Font, Convert Desk Acc, Desk Acc Mover, File Hacker, Font Doubler, Index, Make Screen, MicroFinder, Purge Icons, RamAstart 1.3, REdit, ResEd, Select Paint, Show Version, User Interface Demo.

M11: Print Utilities. Coventry12, Disk Labeler, Fast Eddie, Font Mover, Ink, MacWrite 4.5 to Text, miniWriter, MockWrite, Pica10, ReadMacWrite, Walla Walla9.

M27: Utilities #3. Browse/Shazam!, Clocks: analog & digital, Edit, FEdit 3.0, launch, lazyMenu, Magic Beep 1.0, Menu Ed, microFinder, Quick Dir, Quick Print, RamStart2.0+, Road Atlas, ShrinkToFit, SignEdit, SortMenu, SuperFinder4.0, TabsOut, Unpit, Way Station.

M28: Red Ryder 7.0. Red Ryder 7.0, Red's 7.0 Stuff, RR 7.0 Macros, RR Docs.

M43: Utilities #4. DiskDup+, MacSnoop 1.03, RamDisk+ 1.4, ResTools 2.01, Oasis 2.01, Font Librarian, Switch.

Games

M4: Games #1--Backgammon, Bash Big Blue, Curves, MacLuff, MacYahtzee, Maze 3D, Meltdown, Missile Command, Munch, PepsiCas, Smile, Snow, Solitaire, Space Bubbles, Vax Runner II.

M6: Games #2--Ashes, Black Box, Destroyer, HexPuzzle, Killer Kalah, MacPoly Demo, Office Attack, Point Symmetry, Snake, Solitaire, Trophy List, Wall Game, Wheel.

M7: Games #3. Ashes, Break the Bricks, Deep Ennui, Go, Mac Gunner, MacBugs, MacCommand, MacYahtzee, Wiz Fire 1.1

M15: Games #4. Alice, Amps, Bricks, Canfield 2.0, Iago, Lets Get Tanked!, MacHeads, Nim, Space Attack, Third Dimension.

M20: Games #5. Chase'Em, Crystal Raider, Daleks, Golf MacWay, Kill File, Kill, King, King MacWrite, On-The-Contrary, StuntCopter1.2.

M21: Games #6. Guess, Hacker's Contest, Hot Air Balloon, Match, Ramm, Third Dimension, Trick-Track, Utaan Attack, Zero Gravity.

M25: Games #7. Billiards, Cross Master Demo, Flash Cards, Hangman-9.0, MacLuff, Master Guess, Safari 1.0, Venn.

M30: Games #8. Bowl-A-Rama, MacTrek 1.1, Mystery Box 1.0, Shots, Star Trek Trivia Quiz, Window Blaster 1.0.

M34: Games #9. 1,000 Miles, Asteroids, Cairo ShootOut!, Donkey Doo, Duck Hunt, Pente 1.0.

M45: Games #10. Blackjack 4.0, Gunshy 1.0, Humpback, New Social Climber, Panic, Puzzle 1.0, Star Trek Trivia Quiz, VideoPoker.

M51: Games #11. Bouncing Balls, Fire Zone, Mac Word Hunt 2.0, Out Flank, Risk and Word Search.

M53: Games #12. 3D Checkers 2.0, Bills Casino, BMX-The Racing Game, HeloMath, Mouse Craps.

M58: Games #13. Klondike 3.6, Space Station Pheta, Mac Concentration, Sitting Duck, Hot Air Balloon 2.1, Think Ahead+2.0.

M60: Games #14. Golf Solitaire, Mac Football, Euchre 2.2, Gomoku, Pyramid, Checkers, Runaround and Macpuzzle 1.0.

M19: PCS Games #1. Apple, Black Hole, Face, KalinBall, Madonna, Minute-Mag, Patchwork Mess, Phantom, Pure-Gemme, Samurai, The Royal Pain, Wizards Lair.

M29: PCS Games #2. Circus Circus, D&D, Diadora, Max, Merlin, Modern Mistress, Question, Royal Pain, Twilight Zone, Whazit.

Adventure Games

M17: Dungeons of Doom 4.0.

M23: Vampire Castle.

M24: Deep Angst. 1 Mb ST only.

M31: Black Wizard.

M36: Castle of Ert.

M40: Hack, V1.03. incl manual w/docs.

M41: Radical Castle.

M63D: Mountain of Mayhem.

M65D: Deep Angst II

M66: Intruder.

Graphics

M10: Graphics #1. Amy, Artisto, Ball demo, Big Ben, Brooke, Bugs, Curves, Display Message, Dragon, Fighting 51, Fourth Dimension, GARF, HotSex!, Liar's Club, Living Art, Max Headroom, Moire 3.0, Nightmare, Optical Illusion, Paint Grabber, Painter's Helper #1, Pattern, Pisces, Rotations, Saddle, The Fourth Docs, ViewPaint 1.5.

M12: MacBillBoard. Chipmunks, Donald & Daisy, Goofy At Bat, Announcement, Babe Ruth, Carrotprint, Classic illusions, Escher, Escher Hands, MacBillBoard, Max, Mickey and Minney, Quick Tour, T-Shirt.

M22: Graphics #2. BlowUp 3.0, BlowUp Notes, Calendar Maker 2.2.1, Dynamo, Graphic, Mad Menus, Math21, Rays, Simutree, Spiro, Tree, Vanlandingham.

M26: Graphics #3. 3D Sketch, AniRama, Bin/Graphics, Brownian Motion, Control, Fractal Contours, Fractals, Icon Collector, Julia, Make Paint, Melting Clock, Small View, Shape Art, Star Flight, Window Demo.

M47: Graphics #4. Cursor Designer, Earthplot3, Graphics2, Mondrian1, MotionMaker2, Moving Finger, Wallpaper, Zoomation.

M57: Graphics #5. Micro Film Rdr1.4, Bomber, Iliana II, Preview, Super Ruler 1.1, and XVT-Draw.

Font Disks**

M13: Fonts #1. Akashi, AlgBlurb, Algebra, Athens, Boxie, Dover, Geneva, Hood River, ImageWriter, LED, London, Los Angeles, Luxor, Mars, Monaco, Park Ave, Pica, Ravenna, Rome, Runes, San Francisco, Seattle, Steel Brush, Ultra Bodoni.

M14: Fonts #2. Bookman, Courier, Coventry, Dali, Geneva, Hebrew, Manteco, Shadow Box, Sri Lanka, Times, Walla Walla, and font display 4.6 w/docs.

M16: Fonts #3. Alice, Avante Garde, Berkeley, Broadway, Camelot, Cartoon, Centura, Chancery, Eon, Exeter, Fallingwater, Fantaste Key, Fantastel, Future, Ham, Helvitica, Hollywood, Lachine, Lineal, Madrid, Pittsburg, San Quentin, Silicon Valley, Stencil, Uicol plus DAFont2.da and SysFonts.da.

M32: Fonts #4. Canberra, Chicago, Humanistic, Music, New Dali, Palencia Application, Palo Alto, Pioneer Shadow plus F/DA sorter and Font Tester.

M35: Fonts #5. Beehive, Beverly Hills, Boise, Chicago, Courier, DeStijl, Ham, Happy Canyon, Helvitica, Mod. Chicago, Old English, Square Serif, Sri Lanka, Worksheet.

M42: Fonts #6. Berlin, Boston II, Courier, Dorza, Highwood, MicroBoston, MiniBoston, New York, Palo Alto, Sparta, Stiletto, Symbol, Tatooine, Venice, Wartburg.

M44: Fonts #7. 42nd Street, Aldous, Art Deco, Ascii, Blockbuster, Border, Clairvaux, Coptic, Deep Box, Ivy League, Klingon, Las Vegas, Little Box, Madrid, Memphis, Minneapolis, Rivendell, Spokane.

M50: Fonts #8. Alderney, Cairo, Cyrillic, Greek, Paint, Playbill, Rehovot, Runes, Washington, Zodiac.

M61: Fonts #9. New Century, Helvetica, Columbia, Minneapolis, Creamy, Palatino, Detroit, and Zap Chancery.

M64: Fonts #10. York, Paint, Miscpix, Icon, Cupertino, Arabic, Fallingwater, Schematic, Moscow, and Isengard.

M67: Fonts #11. Cavanaugh, Icon2, Fletcher, Math-Greek, Toyland, Troyes, Memphis, Provo, Scan, Tombstone, Southbend, Klingon, Wall Street.

Clip Art**

M33: Clip Art #1--AirCraft, Business, Car Logos, Cars & Trucks, Clip Art Demo, Disney, Eyeballs, Flowers, Misc, Seasons, Trees1, Trees2, ViewPaint 1.5.

M52: Clip Art #2--Al&Jimmy, Americana, Arrows, Bigger Guys, Billboards, Borders, Cars, Cartoons, Cats, Celebrities, Egret, Famous People, Farm Animals, Good Guys, Gorilla, Hopefuls, Little Guys, MacLectic Clip

Art, More Little Guys, Presidents, Rain/Chef, Skier/Football, Skylines, Space/Race, Statues, Tennis/Running, Wine & Beer.

M55: Clip Art #3. Animals, arrows, books, business, calendar, computer, disk, files, geography, holiday, houses, icons1-6, mail, memo, misc1, misc2, money, music, office, people and symbols.

Commercial Demos**

M37: Mac-A-Mug Pro Demo. Ver 1.0. Create your own mug shots by combining a variety of different facial features.

M38: Video Works Player #1. PD player for VV animated screens w/11 movies.

M39: Demo Disk #2. Anatomiser, DeskPaint, and SuperPaint.

M54: Design. No save feature. Includes 5 samples and full documentation.

M59D: Demo Disk #3. Demo version of Kaleidagraph and Geographics II.

M62: Demo Disk #4. Math Blaster and Blob Manager Demo.

Hypercard Disks**

M48D: HyperStacks #1. Address, Database, Fractal, Funny Day, Home Desk, HyperNews1.2, HyperZoetropes, MacGallery, MacVermont #2, Notebook, Periodic Table, and ResEdit IPS. (Requires HyperDA w/64K ROM.)

M49D: HyperStacks #2. Ear, Illusions, Passing Notes, Shipstack, Silly, and US States V2. (Requires HyperDA w/64K ROM.)

M56D: HyperStacks #3. Atkinson's 786K Clip Art Stack (500 clip art pics). Requires HyperDA with 64K ROM Spectre or Magic Sac.

**** Spectre 128 compatible.**

Spectre 128 PD Library

Note: These disks require Spectre 128 (128K ROMs) and DO NOT work with 64K ROMs unless otherwise noted.

S1: MacWrite 5.0 Demo. (no print or save).

S2: MacPaint 2.0 Demo. (no print or save).

S3D: Red Ryder 9.4. Telecommunications program. Docs, utilities included.

S4D: Aldus Freehand Demo. (Video Works II interactive demo of Freehand.)

S5: Games #1--Banzai, Monopoly 4.0, ATC 4.0, Mines, New Daleks, Brickles 4.0

S6D: PowerPoint Demo. Program for planning, composing, and creating complete presentations. (64K ROM compatible. Also works with Magic Sac).

S7: Games #2. Space Bubbles, Stratego, Investigator #1, Towers of Hanoi, Marienbad.

S8: Image Studio Demo. A photo retouching lab on the desktop, modify digitized images in 65 grey scale levels. (no save).

S9: Telecom #1. Stuffit 1.51, Stuffit Users Guide, Freeterm 2.0 w/docs, TermWorks 1.3, Packet III ver 1.3.

S10D: Stacks #1. Concentration, HyperGunshy, Dinosaurs, AutoStack, Home 1.2.

S11: Utilities #1. MacEnvy, Benchmark, DiskTimer II, SampleIt 1.21, SampleIt Docs, Apfont 3.2, HierDA, Fever, OnCue 1.3 Demo, ScreenDump II, Findswell 2.0 Demo.

S12D: Full Impact Demo. Spreadsheet program (no save.)

S13D: Stacks #2. Visual Stack, Chem Flash Cards, Display Pict 1.4, Indigo Gets Out, AutCat, Animal Stack, Comic, OnTheBeach,

Name That Plane.

S14: Utilities #2. Big Das Runner, Mac II Icons, DiskParam, Utilities 1.5.1 Guide, Unstuffit DA 1.5.1, Auto Unstuffit Installer 1.5, Repair 1.2, ICON Designer, Viewer 1.5.1, SuperClock 3.1, SuperClock Doc, ToMultiFinder, Interferon 3.1.

S15: Games #3. Darts, MacCamelot, BricklesPlus, Gravitation 4.0, SwampLord.

S16: DAs #1. NekoDA, BezierDa and Docs, SnapShotDA 1.2, Adventure, Virus Detective, BreakKey, SysErrTableDA, PinUp Clock DA, Freemem, New Scrapbook DA.

S17: Sounds #1. SoundMaster w/22 sound files for use w/V1.9 of Spectre.

S18: Graphics #1. 1Dmata, DAfx 1.32, 3dEDIT, Fly Saver, Kaleidoscope, Optical, Pattern Blocks, Rae, Turbo View 1.01, MacPaint Shortcuts, Desktop Shortcuts.

S19D: Hyper Utilities #1. Deprotect Stack, XPICIT, Moving Cursors Tutorial, Button Manager, Stack Compacter, Field Line Numberer, CardMover, Six Little Goodies, MH PowerScripts Sample, ShowDialog 1.5.

S20D: MacDraw II Demo. VideoWorks format gives tour of latest features.

S21: Utilities #3. File Scan, Jaws Icon, File Master Icon, File Monster Doc, SnapShot Installer, Black Hole 6.0.2, Looney Tunes Icons, Dog Trash Icon, Shredder Icon, UDS/M1.1, Virus RX 1.4a2, System Font. Note: Some icon files require ResEdit.

S22: Sword of Siegfried. Graphics/text adventure (requires v1.9 of Spectre).

S23: Sounds #2. Mac CD1.0 demo. Sound files may also be used w/SoundMaster on #S17. (10000 Marbles, Any Sound 1, Any Sound 2, Bad Disk 1, BVad Disk 2, Beep, Beep Sound 1, Disk Sounds 1-4, Don't Worry Be Happy, Ka-Chung!, Rolling Your Own, Type Key 1, Type Return 1, Type Space 1.)

S24: Games #4. Dragon 2, Zoony, Mazer-Lazer, and demo version of ShufflePuck.

S25D: MacMoney Demo.

S26: Function Keys #1. (AnalogClock, Clock, CopyDisk 3.0, Craps, F-KEY Installer, FadeKey, FileInfo, fkey, Fkey File Installer, Fkey-DA Sampler 2, FkeyView 2.5, FullMoon Calendar, InfoKey, LaunchKey, MacAlmanac, Pipeline, ResCViewer 4.5, SafeLaunch 2.2, SpaceWarp, StripTease, Unpack, Ver Reader 3.0 and Windows.

S27: Games #5. 3D Checkers V2.0, Ballistics 2.0, Consternation 1.0, HangMan, Peg Puzzle Pak, UnBreakout.

S28: DAtabase Builder Demo. Full featured database (including graphics) in a DA.

S29: Sounds #3. Talking Moose 1.21 and 9 sound resources (Archie, Bad Disk 3, Beep Sound 2, Disk Sound 5, Disk Sound 6, Key Click 1, Oh Yeaahh!, Mac Sound 1, and Startup Sound 1).

S30: Utilities #4. Init Cdev, Assassin, BundAid, Curse the Finder, Easy Icon, Finder Cursor Icons, Finder Icons, HD Mini-Icon, IconManager 1.1, JerryCan, Murphy Init, NeVR Init, ScrollIMBar CDev, System Icons+, Version Sleuth 1.0, What, and Windows.

S31: DAs #2. AddressBook 1.1.2, Art-ist+2.01, BlackJack, Calc 3.0, Calendar 1.7, Catch, dCAD 3.0, Diskinfo 1.2, Maxwell 2.2a, MegaCalculator, SuperHelp, VirusDetective 2.2.1, and windows.

New for September

S32: VideoWorks w/Sound. 6 VV animations with a player, sound resources, and MacinTalk ("1 Mac to go," Apollo, Marbles, People Wall, ShortStop, and The Cauldron.)

S33D: HyperUtilities #2. GetString XFCN, HyperScrap, LockField, PluckString XFCN, Recover, Script Lister, ScriptAccess, Stack Analyzer, Stak-X Demo, Unity, Virus Encyclopedia, XFCN miscellany, Zoomer XFCN).

#S34: Excel Templates #1. Macro, Amort Sch, Apod 1.9, Budget, Checkbook, Clock.CH, Clock.MS, Clock.WS, Commands, DB.Form, Excel Budget, Expenses, Exps. Inc, IRA, Load Calc Master2, Load MaxTime 2, Matrix, MortAmr.MS 3.0, Replace, Savings Account, Bio Chart, Biorhythm.

S35D: HyperStacks #3. Atoms, Bird Stack II, Helicopter Stack, HyperIRA, Scan Stack 3.

#S36: Sounds #4. Includes A Wish, I don't know, I know you are, Mecca jumbi, Need Input!, Unacceptable, Ax Headroom, Cheap-Beep, Ayaaaah!, Boom!, aoooh, game over man, monkey, and vulcan mind.

New for October

#S37D: HyperStacks #4. StackArt Vol.1 (100 clip art pics) for use with HyperCard or HyperDA. This clip art can be copied to the clip board or scrap book for pasting into other documents.

#S38: Games #6. Cairo Shootout 1.2a, Puzzl 1.1, and Stunt Copter 2.0. These games have been placed in the public domain in memory of their author.

#S39: Utilities #5. Init Cdev 2.0, About IOnit Cdev 2.0, Moire Cdev, Moire Screen Saver Docs, Moire Cdev to Init, Hierda .9983, Hierda release notes, RAM check, RAM Check Info, SnapJot, SnapJot Docs, SnapJot Demo DA, SuperClock 3.4, SuperClock Docs, Time-piece, TimePiece Docs, Virus Dective 3.0.1, Wind Chooser 1.0.1, Why 1.0.1, QuickKeys demo.

#S40D: HyperUtilities #3. Includes 4 stacks for use with HyperCard. Christopher's XSTAK4, How a Virus Works, IConjurer, and Progress XCMD 1.1.

#S41: Productivity #1. Five personal productivity packages: Album Tracker 2.01, Amortize 2.4, Check Book 2.0, Road Atlas, and Smallview 1.3.

NOTE: CN disks (Magic, Spectre, ST, PC, or ST-LOG) cost **\$4.00 each**, but discount prices are available for quantity orders:

- 10+ disks (\$3.80 each),
- 20+ (\$3.60 each),
- 30+ (\$3.40 each),
- 40+ (\$3.20 each),
- 50+ (\$3.00 each).

Add \$1 for every 6 disks (or fraction thereof) for shipping and handling (maximum \$6 charge for S&H).

Order disks from:

CN Library,
122 N. Johnson Rd,
Sterling, VA 22170.

ST programmers: if you would like to submit your PD or Shareware programs to the CN library, send them to CN Library, 122 N. Johnson Rd., Sterling, VA 22170.

July/August 1989

#345: Berthold Pics No. 1. 8 exciting Spectrum pics from. John Berthold: Anasaz1, Blokblos, Duckneuv, Explore, Moonfest, Outback, Philtoo, Scape3c and spslide.prg.

#346: Spectrum 512 Utilities. From Doug Johnson: SPCPRINT (print Spectrum pictures directly to printer, color or black-and-white), SPCCONVR (convert Spectrum 512 pictures to Degas PII), SPCVIEW (GFA Basic program to view Spectrum 512 pictures). Disk includes three pictures: laserbee, madonna, and redarrow.

#347: MOTerm Elite 1.41. The Ultimate Telecom Package for the ST, by Doug Johnson. Features many things that no other terminal packages contain, including medium or high resolution graphics which can be exchanged over the modem automatically, sound that can be transferred online, a new file transfer protocol called Dmodem that is faster and more accurate than Xmodem, built in text editor for editing of information captured off of a modem or other files, an automatic dialer that will dial phone numbers while you do something else within the program, the fastest Xmdoem file transfer routines yet available for the ST, and much more. Requires 1 Mb.

#348: Game Disk No. 18. Companion 1, color arcade action as you fly your ROCM, and Trivia Quiz, test your knowledge against the computer or other players. (C)

#349: XFORMER Programs No. 1. Includes Analog 35, 38, 41, 44. These are the Analog 8-bit disks converted to ST format for use with Xformer. Xformer is the Atari 8-bit emulator. (CN #263: ST XFORMER now has version 2.4)

#350: XFORMER Programs No. 2. Includes Analog 47, 50, and 55. More Analog 8-bit disks converted to

ST format for use with Xformer, the Atari 8-bit emulator.

#351: Publishing Partner Utilities No. 3. 18 fonts for use with Publishing Partner: Binner, Blockup, Cyrillic, Futura Bold Condensed, Futura Block, Keyboard, Gothic, Lubalin, Old English, Oriental, Segment, Spokane, Stop, Timebold, Tyme/Helv, University, and Wilkes.

#352: Graphic Utilities. Meta-view Prg/Acc by Ric Clayton. Program allows you to view GEM Metafiles in standard GEM windows. (Metafiles are files with a .GEM extension such as those produced by *EasyDraw* and *GEM-Draw*.) Will display any GEM Metafile, in any resolution, with or without GDOS installed, and (hopefully) run on any version of TOS. Image Editor DA V0.65 Demo by Mike Bergman (mono only), a tool to edit monochrome .IMG files for desktop publishing and related activities. Deluxe Slideshow V2.0, by John Brochu, combines all the currently popular ST graphics formats (Neochrome, Degas, Degas compressed, Tiny, and Spectrum) into one compact, but flexible slide show program. IMG Show, by Migraph, allows viewing of monochrome .IMG files on any resolution ST (low, med, hi, & Viking I). Art Gallery, by Charles F. Johnson, shows Degas, Degas Elite compressed, Neo and Tiny compressed pictures. ST Banner, by Steve Whitney, print large banners out of small letters on your printers. Also Degasnap.prg and Snapshot.acc.

#353: Print Master Icons No. 3. Collect 1,2,3,4. A collection of 479 icons for use with Print Master.

#354: Print Master Icons No. 4. Collect 5,6,7. A collection of 470 more icons for use with Print Master.

#355: IMG Mortised Cuts. 19 IMG pictures: angel, artist, backsign, dinner, dog, dragon, elf, frntsign, jack-box, jester, mirror, paperboy, ship1, ship2, train, trumpet, two elves, umbrella, wide man.

#356: Bolo. The game Bolo is from Germany and runs in color or monochrome. The files on this disk

MUST be in drive A. Bolo is a cross between Breakout and Arkanoid.

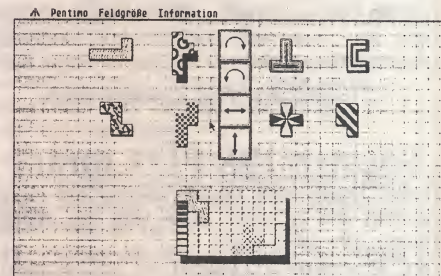
September 1989

#357: PageStream Fonts No.

1. An assortment of DEMO fonts available for PageStream. Note: these demos do not include the entire alphabet. Anglo, Opt, Typewriter, Downtown, Handwriting, Rock, Beginnings, Brushup, Karin ... +24 more fonts.

#358: Calamus Fonts No. 1. 15 complete fonts for Calamus. Chancery, Cursive, Condensed Cursive, Gillia, Gilly, Revue, Savings, Souvenir Medium, Souvenir Med Italic, Spokane, Study, Study Cond., Windy.

#359: Pentimo. This is a terrific puzzle game that will provide you with hours of entertainment. Place 12 pieces in box. Many variations, 100s of solutions, but try and find one! (M)



#360: Bermuda Race II. A racing simulation game. You have to learn the ins and outs of sailing to win this race. (C/M)

#361: Game Disk No. 19. Two arcade clones: Rocket Patrol (like Missile Command) and Trifide (like Galaxian). (C)

#362: A Dudley Dilemma. An AGT Adventure, by Lane Barrow. In this game, you play the role of a Harvard University student living in Dudley House in his/her quest for knowledge, adventure and a diploma. This award winning game is a very clever, humorous and challenging adventure in the classic style of Infocom. (C/M)

#363: Tark, Priestess of the first church, in her battle against the demon of dark desire, an AGT adventure by Philip Kegelmeyer. An extremely well

written game based on a "Dungeons and Dragons" theme (complete with spells and hit points) where you play a priestess struggling against the forces of evil. (C/M)

#364: Rapture and Susan(R). Two more AGT adventures: Love's Fiery Rapture, by Natasha Mirage. A torrid tale of what could turn out to be THE perfect date. A parody(?) of romance novels like those published by Harlequin. This game demonstrates a very clever way to translate a "Choose Your Own Adventure" style game into an AGT game. Susan, A Lustful Game, By Bill Larkins. You attempt to score points with your girlfriend, Susan. An R-rated game for adults only. (C/M)

#365: Ring & Pork. Two more AGT adventures: Des Ring Des-Nibelungen, by Michael R. Harris. You play the role of Siegfried in an adventure based on the operas of Richard Wagner--complete with a very tender and loving Brunnhilde. A very unusual approach to an adventure game. PORK, by David Malmberg. A parody of the Infocom game of ZORK. If you were ever frustrated by ZORK, playing this game is your chance to enjoy the sweet fruits of revenge. (C/M)

#366: The Adventure Game Toolkit (AGT). This is a shareware product that lets you construct your own adventure games. Complete Docs included. Adventure games above are all compiled versions of games created with AGT. Programs on disk are ARC'd. (C/M)

#367: AGT Source Code. Includes (ARC'd) the source code to 9 additional AGT adventures: Colossal Cave Adventure, Crusade, Elf's Adventure, A Fable, Ghost Town, Paranoia, Odieu's Quest, The Squynchia Adventure, An Underground Adventure.

#368D: VIDI-ST No. 1. A VIDI-ST digitized animation, two animation sequences of a dunk shot and a pitch. Requires 1Mb. DS-disk (C)

#369D: VIDI-ST No. 2. A VIDI-ST digitized animation, star basketball player (V. Johnson) shooting a basket. Requires 1 MB DS-disk (C).

NEW -- OCTOBER 1989

#370: NORAD. Watch your screen as 97 satellites and meteors trace out their paths on your monitor.

#371: Berthold's Pics No. 2. A second disk of 8 terrific Spectrum pictures by John Berthold. The Legend of the Lost Fuji, Msiau Chou Descending Into the Mist, Fantasy Figure 3, The Escape of Princess Mon-Haat, Skate Riguel, The Story Teller, Eilean Donan Castle-Scotland, Vlacherna Convent-Greece. (C)

#372: Magniwriter ST. Bruce Noonan's latest GEM: ST Writer for the visually handicapped. This is your standard ST Writer, with all its word processing power, but with large letters. If you have trouble seeing the screen, this disk is for you!

#373: Strip Breakout (R). Breakout game with a new twist. Breaking the bricks reveals picture underneath. 27 screens. Adults only. (C)

#374: Codehead/C.F. Johnson Utility Collection. Collection of shareware products and three demos of commercial products from Codehead Software and C.F. Johnson. Includes Little Green File Selector v1.4, Pinhead v1.3 and more.

#375: Darek Mihocka Utility Collection. The complete collection of Darek's 'Quick' utilities (Quick ST to compete against Turbo ST, Quick Index to measure your ST's performance are among the 'Quick' utilities)

as well as his Megablit paint program and Megawatt accessory.

#376: NeoDesk Icon Collection. A collection of 31 icon files for use with NeoDesk 2.0. Includes NeoDesk demo program. Files are ARC'd.

#377: Official Atari Utilities Disk. Includes Atari's latest Hard Disk utilities and booter (version 3.01) which allows more than 4 partitions and partition sizes of up to 1 gigabyte. Also included is the complete set of the 'official' Atari Rainbow TOS utilities and patches. (Rainbow TOS is the name for TOS 1.4). Includes the Hard Disk Ship acc, Mouse Accelerator II.

#378: ELAN 1.5. Another nice programming language environment from The Netherlands with sample source code and documentation in TEX format.

#379: Utility Disk #31, Disk Utilitie. DCOPY 3.2A--the latest version of this terrific all around utility. DISKVFY--verifies a disk to find the bad spots on a disk. FLOORMT2--Floormatter is a nice formatting program that runs in low resolution. GEMLABEL--version 3 of a nice GEM-based labeling program. ACK2PRG--an updated version of a program that shrinks the sizes of executable programs.

CN disk are \$4 each (10+ \$3.80 ea). Add \$1 per every 6 disks for S&H. Order from CN Library, 122 N. Johnson Rd, Sterling, VA 22170.

MAGNIWRITER™ ST		
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C REATE File	L OAD File	Q UIT
D ELETE File	P RINT File	
E EDIT File	R ECEIVE File from 850	
F ORMAT Disk	S AVE File	
I NDEx of Files	T RANSFORM Colors	
<div style="background-color: black; color: white; padding: 5px; text-align: center;"> SELECT LETTER I </div>		

WAACE CLUB CORNER

This space is made available to WAACE member clubs for publicizing activities. Material for this column must be in the hands of the Clubs Editor by the 3rd of each month. Send copy to Ed Seward, PO Box 2699, Merrifield, VA 22116. Material can also be uploaded to the ARMUDIC BBS.

NOVATARI: Northern Virginia Atari Users' Group

President.....	Bonnie Little.....	703-444-2419
ST VP	Ed Seward.....	703-573-3044
8bit VP	Nina Kraucunas	703-250-3572
Secretary	Edmund Bedsworth	703-591-5958
Treasurer	Gary Purinton	703-264-8826
ST Librarian	Frank Chan.....	703-960-0474
8-bit Librarian	Roy Brooks	703-750-0146
8-bit mail	Jeff King	
ARMUDIC Sysop.....	Scott Ogden.....	703-450-3992

New Members: Dues are \$24/year/family which includes a subscription to CURRENT NOTES and access to more activities. Join at the main meeting or at a chapter meeting or by sending \$24, payable to NOVATARI, to NOVATARI, PO Box 4076, Merrifield, VA 22116.

Novatari Main meeting: second Sunday of the month at the Washington Gas Light Building, 6801 Industrial Rd, Springfield, VA. Take 495 to east on Braddock Rd.(620) to south on Backlick Rd (617). Left on Industrial Rd. Washington Gas Light is the second building on the right. 5:30 Programmers SIG; 6:15 announcements, open forum, door prizes; 6:45 VAST and 8BIT SIG meetings.

Chapter Meetings: Mt. Vernon/Hybla Valley, 1st Thursday, 7:30 Contact Ron Peters at 780-0963. Sterling, Sterling Library, 7:30-9:30, Wed after the Second Sunday Contact Richard Gunter at 471-7765. Vienna, 4th Sunday, Contact Ed Seward 573-3044 for time and place.

A.U.R.A.: Atari Users Regional Association

President.....	Niel Johnson.....	301-540-1794
8-bit VP	Steve Preston.....	301-972-9632
16-bit VP	Ira Horowitz.....	301-421-9507
Treasurer	Bob Brock	301-268-2554
Membership.....	Bill Brown	301-279-7537
8bit Librarian	Wayne Heiden	301-330-0130
16bit Librarian	Joe Russek.....	301-946-7593

MEETINGS: Third Thursday of each month in the Multipurpose Room at GRACE EPISCOPAL SCHOOL. The school is on the east side of Connecticut Avenue, 1/4 mi. north of the Connecticut Avenue (North) Exit from I495. Library and swap table sales begin at 7:15, the meeting begins at 7:30. We have separate XL and ST demonstrations. There will be 8-bit and 16-bit door prizes.

Correspondence. All correspondence, including membership renewals, changes of address, etc. should be sent to: AURA, P. O. Box 7761, Silver Spring, MD 20910.

New Members. Dues are \$25/year and include subscription to CURRENT NOTES. Send name, address, phone number, and check to above address.

F.A.C.E.: Frederick Atari Computer Enthusiasts

President.....	Chris Rietman	301-791-9170
Vice President.....	Mike Kerwin.....	301-845-4477
Treasurer	Buddy Smallwood	717-485-4714

MEETINGS: 4th Tuesday, 7 - 9:30 pm, Walkersville HS, MD Route 194, 1 mile north of MD Route 26 (Liberty Road). July and August meetings will be held at St Paul's Lutheran Church, 14 W. Pennsylvania Ave, Walkersville, MD.

NEW MEMBERS: Dues are \$25/year/family and include a subscription to CURRENT NOTES. Join at meeting or send check, payable to FACE, to Buddy Smallwood, PO Box 2026, Frederick, MD 21701.

G.R.A.S.P.: Greater Richmond Atari Support Program

President.....	Mickey Angell	804-744-3307
Vice President.....	Terry Barker	804-379-8175
Secretary	Tom Marvin	804-233-6155

MEETINGS: 2nd and 4th Thursday, at La Prade Library, 2730 Hicks Rd.

Dues: \$20 per year (no CURRENT NOTES).

WACUG: Woodbridge Atari Computer Users' Group

President.....	Lou Praino.....	703-221-8193
VP	Ron Dunn.....	703-494-4260
8Bit VP	Darrell Stiles.....	703-494-9819
ST VP	Bill Parker	703-680-3941
Treasurer	David Waalkes.....	703-490-1225
Librarian.....	Frank Bassett.....	703-670-8780

MEETINGS: 7-9PM, Community Room, Potomac Branch, Prince William County Library, Opitz Blvd., Woodbridge, VA. Entering Woodbridge from either North or South on Route 1, proceed to the intersection of Route 1 and Opitz Blvd. (opposite Woodbridge Lincoln-Mercury). Turn West on Opitz and take first left turn into the library's parking lot. The Community Room is located to your left immediately upon entering the main building.

NEW MEMBERS: Initial membership fee is \$10 plus \$1 monthly dues. Renewals are \$20 per year, payable as of 1 January. Membership includes a subscription to CURRENT NOTES. Join at meeting or send check, payable to WACUG, to David Waalkes, 1302 Oregon Ave, Woodbridge, VA 22191.

M.A.C.C.: Maryland Atari Computer Club

President.....	Jim Hill	301-461-7556
Vice President.....	Dan Honick	301-356-6453
Treasurer	John Cromwell	301-356-6453
Secretary	Bob Brent	301-254-3896
8bit Librarian	Jim Hill (acting)	
ST Librarian	Tim Caldwell	301-687-1413
Newsletter Ed.....	Charles Smeton	301-465-8628

MEETINGS: last Tuesday, 6:30 pm, Pikesville Library, 1 mi. east on Reisterstown Rd from Exit 20 off the Baltimore Beltway.

NEW MEMBERS: Club Dues are \$22/year and include a subscription to CURRENT NOTES. Join at meeting or send check, payable to MACC, to James Hill, 8591 Wheatfield Way, Ellicott City, MD, 21043.

M.A.S.T.: Meade Atari ST Users Group

President.....	Bob Johnson	301-674-8762
Vice Pres.....	Keith Drewke.....	301-551-2662
Secretary.....	John Corkran	301-255-1674
PD Librarian.....	Harold Beck III.....	301-672-1793
Tangent Line BBS	Thomas Hutchinson.....	301-850-5045

Meetings - Third Tuesday of each month at the Province Branch Library at the intersection of Ridge Rd/Rochenbach Rd and MD 175 in Odenton at the rear of the Severn Square shopping center. The meetings run from 6:30 to 9:00 pm.. Call Bob Johnson any evening for further information.

Mailing Address: All correspondence, including membership renewals, changes of address, etc. should be sent to: MAST, c/o Bob Johnson, 1616B Forrest Ave, Ft Meade, MD 20755.

New Members. Dues are \$27/year and include subscription to CURRENT NOTES and unlimited DL and message activity on the Tangent Line BBS. Send name, address, phone number, and check to above address or join at any meeting.

WAACE AtariFest 89

John Barnes, WAACE Chairman

I find myself sitting here nearly a month before the Fest at loose ends that seem to be sticking out all over the place. Are the demonstration rooms going to come off? What do our seminar speakers have in store for us? Are the exciting new products going to materialize? Do we have the troops to set up the show, run it, and take it down?

By the time many of you read this, the whole event will be history. There are many encouraging signs: we have more vendors than ever, we have more advertising than ever in the Atari media, commitments from prominent faces in the Atari community are trickling in. There is a sense of excitement about the products that have come into the marketplace.

The WAACE name has appeared in the press recently in contexts that indicate we played a role in the demise of certain other AtariFests. Let me set the record straight on this score. Our show was scheduled, contracts were signed, and our solicitations were out long before there was any public knowledge of the Kentucky show. Our arrangements with Atari Corp were based on our long track record in this area as well as a recognition on our part of Atari's needs.

Likewise, our show had nothing to do with the collapse of the Glendale and San Jose shows. Vendor burnout and failures to get the proper documents inked on the bottom line undoubtedly contributed to the cancellation of these two events. Atari Corp, once they got a proper management team in place, was more than willing to provide the WAACE show with support because we had shown we could handle the bite we had taken.

A group that works hard to put together a sound product will get the support it deserves. User groups that expect Atari to herd all of their chickens are simply being naive. Atari's resources in terms of cash and personnel do not allow them to wander aimlessly around the world.

Atari, nonetheless, should share some of the blame for show cancellations. The list of approved shows should be posted at least a year in advance. Now that so many shows have folded, perhaps we can wipe the slate clean and get a fresh start for 1990.

I feel user groups should play an important role in all of the shows. In some areas commercial interests will dominate and in others the users will dominate. The two, however, should never compete.

Back in January WAACE could not get a straight answer as to what shows were upcoming. The ST World folks were willing to work only on a 4 to 6 month time horizon. This situation is changing.

Let's hope that the Anaheim show is a big success, followed by one in the south and another in the midwest. Our

experience suggests that people need to start planning for these shows now. The core team of WAACE, Russell Brown, Johnna Ogden, Gary Purinton, Bob Johnson, Georgia Weatherhead, and others, have been working hard for **eight months** now. More than a hundred others will join them in the weeks immediately preceeding the Fest. Putting on an Atari show is a major undertaking requiring much planning and organization to be successful. Godspeed to all of you.

NOVATARI Notes

by Ed Seward, NOVATARI ST VP

The two main demos at the ST portion of the November NOVATARI meeting will be *NeoDesk 2.04* and *MasterLink 1.1*. Many of you are probably aware that *NeoDesk* is a superb replacement for the Desktop. *MasterLink* is being billed as a third generation telecom program for the ST.

With no main NOVATARI meeting during the month of October, this is a good opportunity to try out one of the chapter meetings. This will provide you with a chance to meet some of the other Atari users in your area and to try and get some questions answered rather than waiting till the November NOVATARI meeting.

OCTOBER

- 7 Saturday ATARIFEST '89
- 8 Sunday ATARIFEST '89
- 11 Sterling Chapter Meeting
- 19 AURA Meeting
- 22 Vienna Chapter Meeting
- 24 FACE Meeting
- 24 MAST Meeting

NOVEMBER

- 1 NOVATARI Board Meeting
- 12 NOVATARI Main Meeting
- 15 Sterling Chapter Meeting
- 16 AURA Meeting
- 21 MAST Meeting
- 26 Vienna Chapter Meeting
- 28 FACE Meeting

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ALABAMA

Huntsville AUG, Levin Soule, 3911 W. Crest-view, Huntsville 35816 (205) 534-1815.

ARIZONA

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ARKANSAS

Little Rock Atari Addicts, Keith Steensma, 28 John Hancock Cir, Jacksonville, 72076 (501) 985-2131.

CALIFORNIA

Atari Bay Area Computer Users Society, Bill Zinn, PO Box 22212, San Francisco 94122 (415) 753-8483.

*San Diego ACE, Mark Lawless, PO Box 203076, San Diego 92120 (619) 581-2477.

Santa Maria/Lompac ACE, Mike Jacobson 608 N. Pierce, Santa Maria 93454 (805) 925-9390.

CONNECTICUT

Atari User Group of Greater Hartford, 503-B East Center St, Manchester 06040 (203) 623-8833.

ST Atari Road Runners, Glen Werner, 1160 South Curtis St, Wallingford 06492.

ST Atari Users Society, Brian Rufini, 176 Burnside Ave, E. Hartford 06180 (203) 289-7903.

FLORIDA

Atari Boosters League East, Hadley Nelson, P.O. Box 1172, Winter Park 32790.

ILLINOIS

Central Illinois Atari Users Group, Robert Handley, 1920 East Croxton Ave, Bloomington 61701-5702 (309) 828-4661.

Lake County ACE, Dwight Johnson, PO Box 8788, Waukegan 60079 (312) 623-9567.

ST Information Group, Joe Lambert, P.O. Box 1242, Peoria, 61654 (309) 346-4326.

INDIANA

Atari Lovers of Illiana Equaled by None, Jeff Coe, 706 Center St., Crown Point, 46307 (219) 663-5117.

Eli Lilly Corp Center ST Users Group, Karl Werner, Eli Lilly Corp Cntr, Indianapolis 46285 (317) 276-3020.

IOWA

Midwest Atari Group-Iowa Chap, Gordie Meyer, PO Box 1982, Ames 50010 (515) 232-1252.

KANSAS

Ft. Leavenworth Atari Group, PO Box 3233, Ft Leavenworth 66027.

Lawrence Atari Comp. Club, Robert Drake, PO Box 1415, Lawrence, 66044 (913) 842-5961.

Wichita ACE, Marilyn Merica, 501 Trotter, Maize 67101 (316) 722-1078.

KENTUCKY

Atari Exchange of Louisville, Don Garr, PO Box 34183, Louisville 40232.

LOUISIANA

Only ST Users' Group, William Sammons, 2144 Emerson St, Gretna 70056.

MARYLAND

Atari Users Regional Assoc, Bill Brown, PO Box 7761, Silver Spring 20910 (301) 279-7537.

Frederick Atari Computer Enthusiasts, Buddy Smallwood, PO Box 2026, Frederick 21701 (717) 485-4714.

Maryland Atari Computer Club, James Hill, 8591 Wheatfield Way, Ellicott City 21043 (301) 461-7556.

Meade Atari ST, Bob Johnson, 1616B Forrest Ave, Ft. Meade 20755

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MICHIGAN

Michigan Atari General Information Conference, (MAGIC), Mike Lechkun, 4801 Martin Rd, Warren 48092-3491.

MINNESOTA

SPACE/MAST, James Schulz, PO Box 12016, New Brighton 55112 (612) 533-4193.

MISSOURI

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NEW JERSEY

Jersey Atari Computer Group, 8 Crescent Rd, Pine Brook 07058.

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Charlotte AUG, Joe Venturelli, PO Box 240313, Charlotte 28224 (704) 366-4320.

Peidmont Triad AUG, Nora Schwier, PO Box 1073, Greensboro, 27402 (919) 674-9196.

Triangle Computer Club, Donald Nelson, Rt. 3, Box 760, Hillsborough 27278 (919) 942-2764.

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Miami Valley ACE, Bruce Hansford, P.O. Box 24221, Huber Heights, 45424 (513) 439-1993.

PENNSYLVANIA

Allentown Bethlehem Easton's ACE, PO Box 2830, Lehigh Valley 18001 BBS 215-759-2683.

N. E. Atari Team Users Group, Allan Zaluda, PO Box 18150, Philadelphia 19116-0150.

Spectrum Atari Group of Erie, Earl Hill, PO Box 10562, Erie 16514 (814) 833-4073.

Southcentral PA ACE, Richard Basso, PO Box 11446, Harrisburg 17108 (717) 761-3755.

SOUTH CAROLINA

Greenville Atari Computer Enthusiasts, Mary Anne Terminato, 18 Bedford Lane, Taylors 29687 (803) 292-0280.

SOUTH DAKOTA

Rushmore ACE, Gregg Anderson, 3512 Lawrence Drive, Rapid City, SD 57701 (605) 348-6331.

TENNESSEE

Chattanooga Atari Owners Symposium, Phil Snider, PO Box 80101, Chattanooga 37411

Knoxville AUG, Bill Brosey, 953 Roderick Rd, Knoxville 37923 (615) 693-4542.

TEXAS

DAL-ACE, Rachel Duke, PO Box 851872, Richardson, 75085-1872 (214) 429-6134.

ST Atari League of San Antonio, David St. Martin, 3203 Coral Grove Dr, San Antonio 78247 (512) 496-5635.

VIRGINIA

Greater Richmond Atari Support Program, Thomas Marvin, 1420 Yale Ave, Richmond 23224 (804) 233-6155.

Northern Virginia Atari Users Group, Bonnie Little, PO Box 4076, Merrifield 22116 (703) 444-2419.

Southside Tidewater Atari Tech Users Society, Dick Litchfield, 1805 St. Regis Circle, VA Beach 23456 (804) 468-6964.

Woodbridge Atari Computer Users' Group, David Waalkes, 1302 Oregon Ave, Woodbridge 22191 (703) 490-1225.

WASHINGTON

Seattle Puget-Sound ACE, Nick Berry, PO Box 110576, Tacoma 98411-0576 (206) 759-1473.

STDIO, Ralph Plaggenburg, 904 N. 33rd Pl, Renton, 98056 (206) 228-5303.

WISCONSIN

Milwaukee Area Atari User's Group, Dennis Wilson, 3301 S. 93rd St, #108, Milwaukee, WI 53227 (414) 546-0282.

Packerland Atari Computer Users Society, Peter Schefsky, 2714 South 11th Place, Sheboygan, 53081 414-457-4519.

CANADA

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